# The Veterinary Record

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S., 1888.

No. 15. APRIL 9, 1938. VOL. 50.


## Tuberculin Testing of Ducks


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Those engaged in the control of poultry diseases have on occasion to carry out the tuberculin test upon ducks. The test is not often required as a result of the existence of tuberculosis in flocks of these birds because they appear singularly free from the disease, but because certain foreign countries have decided wisely that all imported birds must have passed the tuberculin test before they are allowed to enter their territory.

Most workers engaged in poultry disease control will agree that the web of the foot is an unsatisfactory site for carrying out the test and the researches of Craig and Davies* have shown this method to be unreliable. The reason for variable results obtained when using the foot web is probably because of the specialised structure of the dermis in that region, there being an increased deposition of fibrous connective tissue and a relatively sparse capillary distribution. The absence of the wattle, except in certain varieties of ornamental ducks, renders these birds more difficult subjects to test with tuberculin than fowls.

In an endeavour to discover a more satisfactory method of testing ducks with tuberculin it was decided to try the sensitivity of the skin of the neck denuded of feathers. The following technique was chosen. An assistant holds the birds on a table and the neck is slightly bent over a small blood sample box or block. A few feathers are removed from the posterior surface in the region of the upper third of the neck. The skin is then raised by pinching it slightly between the operator's thumb and index finger of the left hand and 0·1 c.c. of avian tuberculin is slowly injected into the skin. Owing to the thinness of the dermis, a very fine needle such as a No. 19, suitable for attachment to a Record or similar syringe, is used. After 24 hours the site is examined when a slight discolouration may be present due to capillary haemorrhage in negative reactors but no appreciable swelling, whereas in positive reactors a well-defined oedematous swelling is obtained at the site of injection.

With the object of studying the characteristics of positive reactions in ducks tested in the above manner, six Aylesbury ducklings were obtained and infected with tuberculosis artificially. *Two birds, Nos.* 1,033 *and* 969, were infected intravenously with a suspension of avian tubercle bacilli obtained by grinding up the spleen of a fowl which had suffered from acute generalised tuberculosis. They received 1 c.c. of a suspension made by macerating 9 grammes of tubercle lesion in a mortar and adding 50 c.c. of normal saline. At the time of injection Duck 1,033 weighed 4 lb. 8 oz. and Duck 969, 3 lb. 12 oz.

One week following injection Ducks Nos. 1,033 and 969 which had received the intravenous injections of avian tubercle bacilli, were observed to be off their legs and to have lost condition, their weights at that time being 3 lb. 6 oz. and 2 lb. 13 oz. respectively. Some days later these ducks were tested with avian tuberculin intradermally as previously described. Forty-eight hours later positive reactions were obtained and the skin showed an oedematous swelling with an increased thickness (Plate No. 1). Twenty-three days after infection Duck No. 969 died and *post-mortem* examination revealed a small lesion in the spleen resembling an infarct but no other macroscopical lesions were present. The bird's weight was 2 lb. 7 oz. at that time. Duck No. 1,033 died on the thirty-fifth day following infection. *Post-mortem* examination revealed tuberculous lesions in the liver and no other macroscopical lesion. Microscopical examination of the liver lesions showed faintly stained acid-fast bacilli to be present with many shadow forms.

*Two Ducks, Nos.* 1,130 *and* 141, received 2 c.c. of avian tubercle bacilli in a suspension

*Vet. Rec.* 49. 2.

similar to the above but injected subcutaneously. These ducks weighed 4 lb. and 4 lb. 1 oz. respectively at that time. One week later these ducks had increased in weight to 4 lb. 13 oz. and 4 lb. 12 oz. respectively. A fortnight later their weights were 6 lb. and 5 lb. 15 oz. A fortnight later Duck 1,130 weighed 6 lb. 2 oz. and No. 141 weighed 5 lb. 6 oz. Three months later their weights were 6 lb. 4 oz. and 5 lb. 7 oz. respectively. These birds were then killed and no evidence of tuberculosis was seen macroscopically in No. 1,130. Bird No. 141 showed numerous minute scars resembling healed tuberculous lesions in the liver and spleen. Microscopical examinations of these lesions showed faintly stained acid-fast organisms and many shadow forms to be present.

*The Third Pair, Nos.* 831 *and* 395, each received 4·5 grammes of a suspension of avian tubercle bacilli by the mouth. Their weights at this time were 4 lb. 2 oz. and 3 lb. 6 oz. respectively. Eight days later they weighed 4 lb. 13 oz. and 4 lb. 3 oz. A fortnight later their weights were 6 lb. 10 oz. and 5 lb. 13 oz. A fortnight later they weighed 5 lb. 14 oz. and 5 lb. 10 oz. The birds were killed three months later and their weights were 5 lb. 12 oz. and 5 lb. *Post-mortem* examination revealed ring lesions of tuberculosis encircling the intestine around the Peyers patches in both birds. All the other organs appeared perfectly normal. Microscopical examination of the intestinal lesions revealed acid-fast bacilli which stained faintly and appeared to be inactive.

From the above experiments it would appear that the duck possesses considerable resistance to avian tuberculosis from the fowl. It would seem that the intradermal test carried out in the skin is a suitable method of testing ducks for tuberculosis. One of the writers has carried out a number of tests upon pigeons and other waterfowl in a similar manner and there appears to be an advantage in using the above method when testing these birds.

Plate No. 2 is a photograph of the skin of a normal duck after testing with tuberculin and shows the negative reaction.

*Result of Tuberculin Tests Carried Out Upon Other Birds.*—Sixty Carolina ducks were tested for export; of these, 59 gave completely negative reactions to the test carried out in the skin of the neck. There was no increase in thickness of the skin of more than 2mm. One bird gave a typical oedematous swelling with an increase in thickness of the skin of approximately 5×7 mm.

Four groups of ducks, consisting of three groups of six ducks and one of two ducks, were tested in the same manner and none of these birds showed any increase in thickness of the skin of more than 2 mm. No evidence of tuberculosis was found when the two ducks in the last group were killed.

The writers are indebted to Mr. A. J. Macdonald and his staff for assistance given in connection with these experiments, and to Mr. Morley Davies for taking the photographs of the birds.

## THE ANIMAL HEALTH SERVICE

We reproduce from the *Farmer and Stockbreeder,* of March 29th, the following passages from a leading article welcoming the advent of the State Veterinary Service, as being typical of the views expressed thereon in the leading organs of the agricultural Press:

"The State Veterinary Service is not so much a new as a reorganised service. It will now be possible to co-ordinate the work so as to get the best results from all effort put into it.

"One defect of the system that it is to replace has been that useful experience has not always become available for the general information of the service, and, accordingly, there has not been all the uniformity or efficiency to which the sum of experience might have led.

"A rose by any name will smell as sweet, but still, the Ministry's change of the title of its Diseases of Animals Division to Animal Health Division strikes a note that will be welcomed. The old title savoured somewhat of defeatism, while the new is emblematic of the fulfilment of the real aim.

"It may be a moot point whether the position regarding animal diseases in general is worse or better than it was 50 or 100 years ago. There can be no question, however, about the heavy tax that disease now imposes upon owners of livestock. Just how much reasonable control would save the industry may be a matter of speculation, but it could not be described otherwise than as a huge sum.

"We talk about nature and natural conditions, but we must recognise that our farm livestock have not followed the course of ordinary evolution but have been forced along certain lines by human control. The cow in nature gave perhaps 100 gallons of milk and we have made her into a machine to yield one, two or three thousand gallons. When we have developed her on beef lines we have secured maturity at two instead of six years. We have done something similar with sheep. We have cut the commercial pig's tenure of life to a minimum and have given the domestic fowl a whole-time job in egg production instead of the responsibilities of a modest spring clutch. How far our interference with the natural evolution of farm animals may be responsible for disease problems hardly matters. It may be, too, that we have been slow to recognise the insidiousness of maladies that from slight inconvenience have developed into a serious menace.

"We have to accept things as we find them, and there are high hopes that the intensive campaign now launched will have good and lucrative results. Rinderpest, pleuro-pneumonia, epizoötic lymphangitis, sheep pox, rabies, glanders are shadows of the past; the deadly anthrax is in control.

(*Concluded at foot of col.* 1, *page* 434.)

# K. D. DOWNHAM and J. A. J. VENN: TUBERCULIN TESTING OF DUCKS

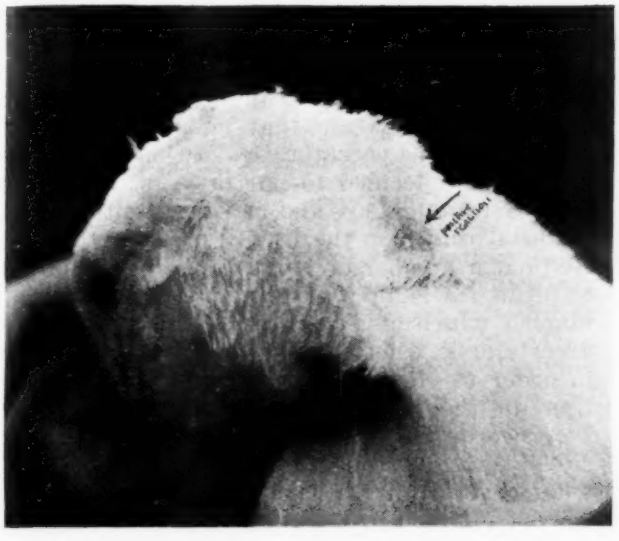

Plate 1: Positive reaction showing oedematous swelling in the skin.

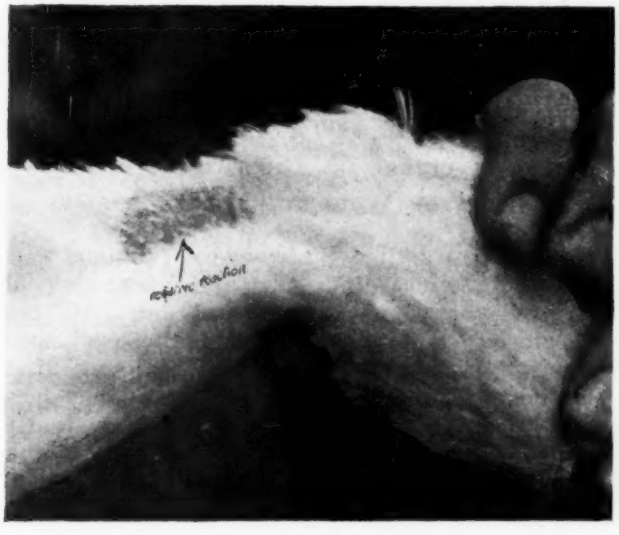

Plate 2: Negative reaction showing skin of a normal bird after testing.

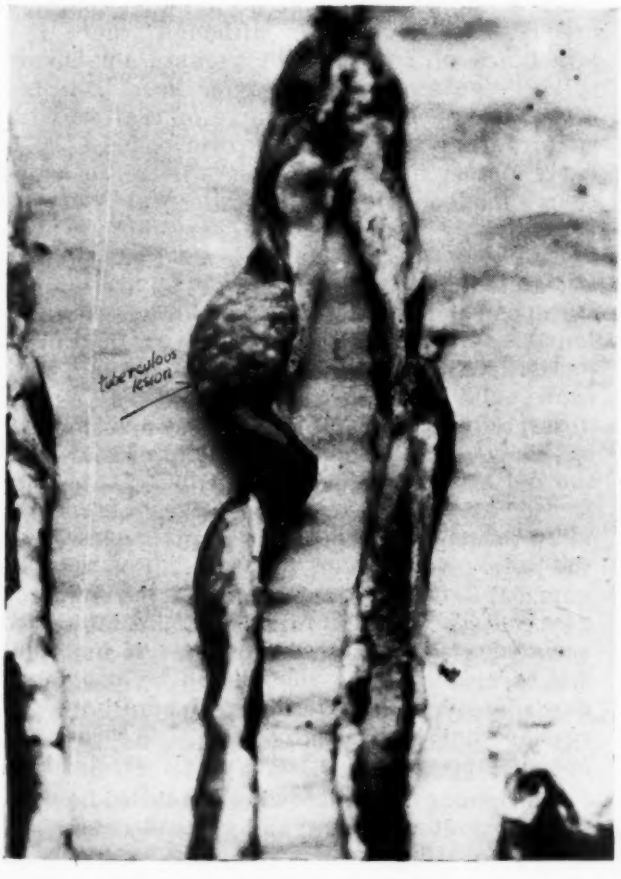


Plate 3: Intestinal tuberculous lesion of a duck infected artificially by feeding.

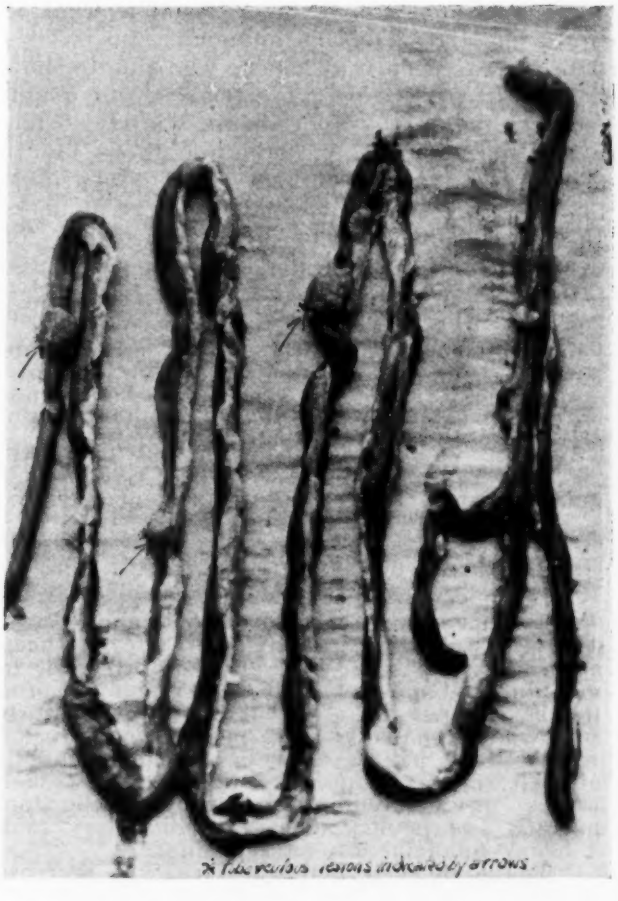

Plate 4: Tuberculous lesions resulting from feeding tuberculous material from a fowl.

# The Logical Approach of Veterinary Parasitology to Obscure Disease Problems

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Once upon a time there was a fabulous bacteriologist whose industry and singleness of purpose were the wonderment of all. Having recognised in his early youth the enormous benefits of specialisation, and realising that the most perfect picture is seen through a lens with the narrowest aperture, he persistently turned aside from every distraction in the pursuit of his objective, which was to reveal to the world the baneful effects of bacterial invasion. By dint of hard work, and through laborious writings on his most careful observations, he was at last appointed to a certain fabulous hospital, where he proceeded in diligent seclusion to examine the intestinal flora of the many bodies that were brought into one section of the mortuary. As time went on the accumulation of his abundant and orderly data increased until at last he was able to show beyond all reasonable cause for scientific doubt, having applied the appropriate statistical formulae and found the correlation to be highly significant, that on account of the invariable presence of *B. coli* in excessively large numbers this organism must be held responsible for death in every one of the long series of those fatal cases which had come under his investigation. Only by chance did he afterwards learn that each one of these many unfortunate men had been run over by a 'bus.

A parasitologist of similar industry and singleness of purpose began to specialise at an early stage in his career, and believing that if only he could know and understand any one parasite as well as he knew his own brother he would have a deeper insight into the ways of all parasites, he spent some years of intensive study on the morphology, histology, physiology and psychology of *Heterakis gallinae*, the caecum worm of fowls. Having at length come to as complete an understanding as possible, and being morally certain that he must now fully comprehend the potentialities of this most active parasite, he decided to put his vast knowledge to more practical use and to ascertain the effects of the worm upon the fowl. He therefore carried out a number of *post-mortem* examinations on dead fowls in the scrupulous and accurate manner which his training had taught and, first ascertaining whether the worms were present in order to eliminate the unnecessary waste of time in the examination of uninfected fowls, he proceeded to look for the results of the parasite's activities, omitting no observable lesion whatsoever. With each new batch of dead fowls examined he was able to add more pathological conditions to his ever-lengthening list, until at last he achieved the magnificent result of proving the causal association of this terrible parasite with all the known diseases affecting the fowl.

These stories, it might perhaps be conceded, are not strictly true; although there is a semblance of reason, they contain an obvious fallacy—*post hoc ergo propter hoc*. But how often it happens in the course of real scientific enquiry that the fallacy is overlooked! The early history of medical science is full of deductions made without experimental controls. Parasitology appears to be particularly prone to this error of reasoning, a good example being found in two publications by an eminent European pathologist who in 1907 wrote an extensive review of the literature on the rôle of parasitic worms in transmitting microbial pathogens, and also gave an account of his own observations, all leading to the conclusion that by biting and boring into the intestinal walls the majority of helminths favour the penetration of microbes. In almost every instance the mere presence of the worms seems to have been the sole evidence for the recognition of their harmful activities, and in one of the numerous cases cited, where a fatal septicaemia was associated with the presence of a single individual *Trichocephalus*, now thought to be one of the most harmless of parasites, the author's conclusion that even isolated worms are very dangerous, appears to be particularly strained.

The young scientist who drank whisky and soda, brandy and soda, and gin and soda respectively on three successive nights, until he became inebriated on each occasion, and who, on thinking it over in the cool of the third morning concluded that the soda was doing it, was

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(*Continued from col. 2, page 432.*)

"We have our problems of tuberculosis, contagious abortion, mastitis, swine fever, sheep scab, coccidiosis, B.W.D., and so forth, not to mention foot-and-mouth disease, which, leaping the barriers of the sea, makes our own efforts somewhat despairing. Yet, having accomplished so much with less well organised means of attack, we may hope for success against such things as tuberculosis, contagious abortion, mastitis and poultry diseases, which levy such a heavy financial toll on agriculture.

"The State Veterinary Service will increase in effectiveness as time passes, and we look forward to steady and eventually great results from the new outlook on animal health."

in the same position: he had no proper control.

Some of us who have applied the control, know that his conclusion was wrong, but have we applied controls to our conclusions about the pathogenicity of certain parasitic worms? I think not. And particularly does this apply to the group of some half dozen species of indefinitely pathogenic worms so frequently found to be infesting the domestic fowl.

If, in attempting to ascertain the cause of death by the *post-mortem* examination of diseased poultry a similar number of healthy fowls from the same flocks could also be examined, our knowledge of veterinary parasitology would be considerably enriched. Unfortunately the time of those engaged in diagnostic work of this kind and the fee which is charged does not permit of such expenditure, and in any case it is the parasitologist's job to carry out such work and to supply data for the guidance of the diagnostician. Until more far-reaching experimental work is done, however, the reasoning processes used in arriving at a determination of death due to parasitic worms appear to be along precisely the same lines as those used by the two imaginary euthusiasts depicted at the beginning of this note.

The opposite standpoint, which would assume particular parasites to be innocent until they were proved to be guilty would, of course, be equally unscientific, and the only reasonable view to take is that we do not know the significance of these infestations, and we ought to find out.

Locke has observed that "it is easier to believe than to be scientifically instructed," and this applies very fittingly to popular ideas on the pathogenicity of parasitic worms, the loathsomeness of these creatures tending to guide the unwary into the belief that all parasitic worms are essentially harmful to their hosts. That the most economically important diseases of sheep and horses, and one of the most important diseases of young cattle are known to be caused by parasitic worms gives added support to this widespread belief; but whereas in these instances we have sound evidence, and know the danger and the injury, in the instance of many of the poultry worms we do not *know*.

The importance of investigating the causal relationship between parasitic infestation and actual disease appeals very strongly to the writer of this note, who considers that it should be one of the first steps to take in order to direct our research along the most advantageous lines and avoid the needless expenditure of limited resources upon matters of no economic moment. To take an extreme example, it will readily be agreed that although the waste of useful material must be enormous there can be nothing to gain by the expenditure of time and money over the development of a method for the recovery of fishes' faeces from sea water for the fertilisation of allotments, when there are more practical ways of helping the working man. Yet in studying parasites apart from disease we may be wasting our research energies in a similar way over what is possibly of little importance to the farmer and to veterinary science. Although we know of many harmful parasites, we may yet be carrying out costly observations concerning the control of others which play little or no part in the causation of disease, however interesting to the pure biologist. This part of the study of helminthiasis, and the advantages of the approach to veterinary parasitology from the disease aspect, has been dealt with on previous occasions* and the desirability of the worker in that subject having a training in the study of disease as well as in parasitology has been stressed. The investigation of parasitism is more likely to forward veterinary science when it begins with disease and then studies the parasite which causes it than in beginning with a minute study of any and every parasite and afterwards looking for a disease.

One of the arguments that might be put forward against this view is that the scare of the danger from worm infestation should be kept up, or presumably, be intensified, as an incentive to the poultry farmer to attend to the hygiene of his premises, but although there may be sound psychology behind that argument it has no connection with the progress of veterinary science which endeavours to search out the truth about animal disease and is satisfied with nothing less.

A section of the recently published Report of the Poultry Technical Committee, dealing with the main cause of mortality among poultry, is of particular interest to one who holds the views which are here expressed. Referring to the records of *post-mortem* examinations carried out at the several large veterinary laboratories it is pointed out that over 43 per cent. of the total deaths investigated during 1934-35 were considered to have been due to three causes: fowl paralysis, coccidiosis, and worm infestation, but that there are marked differences between the various laboratories in the

*Taylor, E. L. (1931.) *Paper presented at the Forty-ninth Annual Congress of the N.V.M.A.*

Taylor, E. L. (1931.) *Vet. Jl.* **87**. 28-32.

Taylor, E. L. (1933.) *Proc. World's Poultry Congress.* Rome.

Taylor, E. L. (1935.) *Vet. Rec.* **15**. 103-109.

Taylor, E. L. (1937.) *Empire Jl. Exptl. Agric.* **5**. 43-47.

diagnosis of these three types of disease. To quote from the report : "The records of one laboratory show a rapidly rising proportion of outbreaks due to fowl paralysis, a decrease in the relative importance of coccidiosis and an insignificant incidence of worm infestation. In the second laboratory not a single outbreak was attributed to fowl paralysis, an increasing proportion of outbreaks was accounted for by coccidiosis and over 22 per cent. of outbreaks were diagnosed as arising from worm infestation. In the third laboratory the majority of outbreaks was ascribed to fowl paralysis and a high proportion was credited to both coccidiosis and worm infestation."

The matter considered in this section of the report led the Committee to the conclusion that the blight of mortality which has fallen on the poultry industry is due, not so much to known diagnosable disease, as to ill-defined ailments as yet not understood, the cause and control of which have still to be discovered.

The proper response of verterinary parasitology to this state of affairs is, obviously, to do what can be done towards ascertaining the pathological significance of the widespread poultry parasitism which is known to exist and which give rise to such diversity of opinion among the expert diagnosticians. There is no denying the difficulty of the investigation, the parasitologist being at a marked disadvantage in his inability to grow the parasites *in vitro* ; but there is also no denying that much more could be done, and that a large amount of energy is often put into less important lines of research.

Although we hear very little of "Koch's postulates" from the bacteriologists at the present time, those requirements for the proof of causal relationship of bacteria with disease doubtless played a most important part in laying a sound foundation to pathological bacteriology; and there appears to be no valid reason for avoiding the same cautious approach in the association of parasitic worms with disease.

The reason for the exceedingly small amount of investigation which has been made into the pathogenicity of these parasites is, doubtless, the immaturity of helminthology as a special branch of medical science, and the large amount of basic biological work which had to be carried out before it was possible to proceed very far with the investigation of disease. Sufficient of this has now been done, however, to enable the disease worker to proceed with the study of *pathological parasitology* and one of his first problems, now shown to be an urgent matter by the report of the Poultry Technical Committee, is to ascertain the pathogenicity of some of the commoner parasitic helminths.

# THE PREPARATION OF NAGANOL SOLUTION

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In those countries where the distribution of naganol on payment must be left to uneducated native stock inspectors working far from a central laboratory and away from European control, it is necessary to provide them with the drug in solution. Supplying them with naganol powder and distilled water has the disadvantage that the solution cannot be accurately prepared in a sterile manner by such persons in the field; they are not sufficiently able to be capable of weighing accurately this expensive drug dose by dose, and when working in the wind-blown and sandy desert, proper preparation is virtually impossible.

The preparation of a fresh solution of naganol each time it is used is called for by the makers. However, as a result of injecting some 17,000 native-owned camels at 3s. per dose, the conclusion has been reached that the following technique, which was mainly formulated by Major Cocksedge, M.R.C.V.S., is satisfactory.

Ninety grams of naganol are added to 850 ml. of distilled water and well shaken. One hundred and fifty ml. quantities of solution are put into sterile cotton-plugged 6 oz. bottles and sterilised for ten minutes in the steam steriliser at about 95° C. The bottles are then corked, and the corks are dipped in wax. Thirty ml. of this solution will contain 3 gm. of naganol.

After two or three weeks a slight deposit may form in the bottom of the bottle, but in practice this causes no trouble or complaint. However, sometimes the deposit has been filtered out with paper, and the solution re-sterilised for five minutes.

The preparation of naganol in this manner saves much time without apparent loss of efficiency even after three months' storage.

Messrs. Bayer have kindly replied, as shown below, to questions bearing on the method now advocated:—

| *Question.* | *Answer.* |
|---|---|
| 1. Whether there is any objection to keeping the solution for three weeks. | 1. We do not recommend the preparation of a naganol solution to be kept for three weeks, as a precipitate gradually forms. This precipitate is formed through the semi-colloidal naganol forming larger particles which appear in the solution as flakes and gradually sink to the bottom. |

| *Answer.* | *Question.* |
|---|---|
| 2. Whether there is any objection to filtering the solution when a deposit has formed. | 2. We cannot recommend the use of a clear solution prepared by filtering such a solution from the precipitate although, it is true, no decomposition has taken place. Through the separation of the precipitated particles, however, the quantity of naganol in solution is reduced so that the solution is weaker and the danger is incurred of giving the animals too small a dose. |
| 3. Whether there is any objection to the resterilisation of the solution in a steam steriliser when, after two or three weeks, a deposit appears. | 3. Repeated sterilisation of a naganol solution, which is being kept for some time, in a steam steriliser is not to be recommended. As pointed out under 1, the keeping of a solution is not recommended at all. There is also the added danger that by heating, further changes will occur in the solution and that further precipitation will be facilitated, especially if the solution is stored in a glass container not absolutely free from alkali and liable to form alkali silicates. |
| 4. Whether there is any objection to the keeping of the solution for periods up to three months. | 4. This question is answered by 1. On principle, we recommend that only freshly prepared naganol solutions be used. |

In the face of these remarks by Messrs. Bayer it may seem foolhardy to continue advocacy of the technique described, but in view of the extensive experience of the author it is thought that the loss of naganol from the method cannot be very great, and that the practical benefits to the camel community arising from the method far outweigh its disadvantages. It will be observed that this method of preparation is recommended in those particular circumstances which occur when it is necessary to treat camels in the desert in the absence of European assistance. No disadvantage has ever been seen by the writer from using the technique, and the increasing sales of naganol in Somaliland bear witness to its popularity with the native.

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Pit ponies and colliery horses from the South Wales and Monmouthshire coalfields are to compete at the Royal Show at Cardiff in July. In addition to taking part in competitive classes there will be a daily display of horses and ponies representative of all classes of animals used underground in the principality, and drawn straight from the pits only a few days before the show.

## REVIEW

# Constitution and Functions of the Agricultural Research Council*

Under the above title the Agricultural Research Council have published a small booklet, which is intended to meet the complaint that "farmers and others have sometimes expressed the view that insufficient information is available about the activities of the Agricultural Research Council."

It will be remembered that the A.R.C. was established in 1931 by Royal Charter to carry out work under the direction of a committee of the Privy Council for the Organisation and Development of Agricultural Research, of which the Lord President is Chairman.

The present booklet has been written to explain the constitution and functions of the Agricultural Research Council. We should point out that the word "constitution" is employed in the historical sense rather than in the sense that it means "structure": those who turn to the booklet to discover the personnel of the Council itself or of its numerous *ad hoc* or advisory committees, will be disappointed. We would have thought that a list of the members might very well have been given—since the purely impersonal account which is presented would have gained materially by the inclusion of the names of those who serve. In fact, this exclusion does nothing to dispel the lack of confidence which is not unnaturally felt by those who belong to our profession, when we read in the booklet that out of some 15 scientific committees and sub-committees, no less than eleven are devoted to one or another direct aspect of animal disease. We cannot but wonder whether these committees have been constituted with a view to securing the most representative and able brains in the country.

The Council consists of not less than twelve or more than 15 members. The original members were appointed by Charter. Each year, until 1938, three members retire annually. Hitherto, they have been immediately reappointed! Whatever may be the reasons underlying the maintenance of such a closed corporation for the first seven years of its existence, they appear to us most worthy of inclusion in the booklet, but they are not mentioned.

In consideration of their functions, we think that we could best serve our readers by quoting a paragraph. This is as follows:—

*Published by the Agric. Res. Council. Dec., 1937.

"The greater part of the cost of agricultural research in Great Britain, including not only the expenditure of the Agricultural Research Council but the much larger expenditure on research and advisory work by the Departments of Agriculture, is met by appropriations-in-aid from the Development Fund, and the duties and responsibilities of the Agricultural Research Council as advisers to the Development Commissioners, on whose recommendations advances from the Development Fund are sanctioned by the Treasury, are defined in the Note on Procedure. The Council are charged with the duty of securing the co-ordination of all agricultural research financed from the Development Fund; they are to act as scientific advisers to the Commissioners; and in connection with the preparation of the annual Estimates they are required to submit to the Commissioners a financial statement analysing the whole provision to be charged on the Fund for the ensuing year for agricultural research. This statement is prepared by a standing Budget Committee of the Council. When the provision made available by the Treasury is less than that for which Estimate provision had been proposed, the Council, if necessary and if circumstances permit, advise the Commissioners on the allocation of the provision for expenditure actually sanctioned. In practice all schemes for and all expenditure on agricultural research, apart from certain relatively minor sums not met by appropriations from the Development Fund, come under the scrutiny of the Agricultural Research Council. The Council are particularly charged to give attention to the requirements (1) that any expansion of agricultural research is directed to the most important needs of the industry; (2) that present and future facilities available at research institutes or elsewhere are utilised to the greatest advantage; and (3) that undesirable duplication of research work is avoided. The Council are empowered to consult directly with research institutes whenever they think it desirable.

Besides these advisory and co-ordinating functions power has expressly been given to the Council to make grants to certain institutions and to carry out agricultural research themselves, employing scientific and other staff at research centres under their own direction or elsewhere. In the exercise of these powers consideration is given to the various types of research facilities available or that may be created, and the procedure differs accordingly. When the Council desires that a grant for a piece of special research should be made to an institution which is already receiving general aid from an Agricultural Department, it makes a recommendation to that effect to the Department concerned. To all other suitable institutions or organisations and to individuals the Council is empowered to make direct grants and it finances research carried on by its own staff. In all cases there is intimate consultation between the Council and the Departments."

This deserves but little comment beyond noting that there is a significant restriction of the application of research funds to "the most important needs of the industry," and that "undesirable duplication of research work is avoided." There is, in effect, a particular charge upon the A.R.C. to restrict research to problems which have an economic value.

There is a note of something akin to apology running through much of the booklet. Comparisons are drawn with the Medical Research Council and with the Advisory Council of the Department of Scientific and Industrial Research, and it is noted that agricultural research has a more limited appeal than either of the former. The agricultural industry is not rich, it has no special appeal to the philanthropic for such donations as those which form much of the financial strength of medical research, while the actual field of research to be surveyed is wide and the problems are frequently exceedingly complex. To some extent the Council have wisely relegated a part of their functions to subsidiary bodies. The Scottish Board of Research in Veterinary Science would seem to us to be a step in the right direction—even though it is obviously fettered by its subsidiary position in relation to the Department of Agriculture for Scotland. We could well imagine that the Scottish Board would have been in a better position to carry out its functions had its responsibility been direct to the A.R.C. The six Standing Committees of the A.R.C. deal respectively with Soils and Plant Nutrition; Plant Physiology, Breeding and Disease; Animal Diseases; Animal Nutrition and Breeding; Dairying and Animal Products; and Agricultural Economics. These committees, to a large extent, are constituted from among the members of the Council themselves. There are also some 15 *ad hoc* committees, on which experts from outside the Council serve. These are on: (1) Preservation of Grass and other Fodder Crops; (2) Soil Surveys; (3) Virus Diseases of Plants; (4) Insecticides and Fungicides; (5) Helminths of Economic Importance (Animals and Plants Sections); (6) Braxy-like Diseases of Sheep; (7) Contagious Abortion; (8) Fowl Paralysis and Similar Diseases and Coccidiosis; (9)

Johne's Disease in Cattle and Sheep; (10) Swine Fever and Similar Diseases including Enteritis in Young Pigs; (11) Tuberculosis; (12) Iodine Deficiency and Thyroid Disease; (13) Nutrition in Relation to Disease; (14) Equine Research; (15) Grass Sickness in Horses.

Our readers will doubtless agree that since such a large proportion of the activities of the Council are concerned with purely veterinary problems, the constitution of these committees—so far as personnel is concerned—would have been a matter of great interest. It is stated that these committees are composed "mainly of experts from outside the Council," and that they are "retained to co-ordinate and supervise the work in progress." They meet at irregular intervals but sufficiently often to keep in close touch with the work in hand.

Some account is included of the proposals relating to the establishment of the field station which has recently been acquired at Compton in Berkshire. The station is designed to serve the needs of various research institutes dealing with animal disease. The specific objects are:—

(1) To furnish a supply of disease-free animals to research institutes;
(2) To give facilities for the investigation on the field scale of animal diseases of urgent importance or of other agricultural problems.

Regarding the second of these objects, the activities of the station will apparently be mainly occupied on work on the prevention of contagious abortion, for some years to come.

The finances of the Council are discussed. The amount of money furnished was as follows:—

| | For Research. | | For Administrative Expenses. |
|---|---|---|---|
| For 1934-35, | £6,000 | ... | £3,705 |
| For 1935-36, | £15,525 | ... | £4,475 |
| For 1936-37, | £49,000 | ... | £7,900 |
| For 1937-38, | *£88,640 | ... | £8,500 |

It is noteworthy that the 1937-38 estimates include a sum of no less than £79,510 for capital expenditure on the field station. There would thus appear to be something over £9,000 available for all other research schemes initiated by the Council for the current year—exclusive of monies administered under the votes of the Ministry of Agriculture and of the Department of Agriculture for Scotland. In addition to the funds directly administered, the A.R.C. advises regarding expenditure of appropriations in aid from the Development Fund, amounting to approximately £380,000 for 1936-37, for agricultural research and advisory work.

*£38,640 of this was a reappropriation from 1936-37, when it was provided but not utilised for the purchase of the field station.

Other funds administered include £2,000 per annum from the Milk Marketing Board for work on contagious abortion, and £2,000 in 1937-38 from the Racecourse Betting Control Board for the cost of work on diseases of horses.

The Council also has in hand schemes for the encouragement of research work. Certain of the now well-known platitudes regarding the co-ordination of teaching and research work in veterinary colleges are reiterated. The ideals aimed at are good ones, but it is difficult to see wherein they have so far been effective. Possibly this is a matter which time will rectify, but no one will deny that there is much more to be done in this direction, before the Agricultural Research Council or we in the profession will have cause for satisfaction.

## CLINICAL COMMUNICATIONS

# Notes on the Use of Prontosil in Veterinary Practice

C. S. HASELDEN, M.R.C.V.S.,
Northwood, Middlesex.

In the first place the writer wishes to point out that these notes are only of a preliminary nature, but as so little has been published in veterinary literature regarding prontosil, he feels that his experience of this drug may be of some assistance to other members of the profession. He hopes to be able to publish a more complete report at a future date.

For any who may not be fully conversant with this drug it may be as well to emphasise that its action is to destroy streptococci and, it is also claimed, staphylococci in the *blood stream*, and as such it stands unique in the history of medicine.

It is therefore evident that prontosil is indicated only in cases of generalised septicaemia with a consequent rise in temperature, and that it was never intended for, nor does experiment show that it is of any service in, the eradication of localised purulent conditions. Used appropriately, prontosil gives most spectacular results, and in none of the following five typical cases have any signs of toxicity been observed.

### Case 1

*Subject.*—Wire fox terrier bitch; aged eight years.

*Examination* (April 16th, 1937).—Painful swelling in the groin; temperature 103°; pulse and respirations rapid.

*Diagnosis.*—Mammary abscess.

*Prognosis.*—Good.

*Treatment.*—The abscess was lanced but not irrigated or dressed in any way. 5 c.c. prontosil (5 per cent.) plus one tablet prontosil album b.i.d.

*Result.*—Complete recovery in four days.

### Case 2

*Subject.*—Male cat, aged four years.

*Examination* (April 16th, 1937).—Foot very swollen and painful following cat bite. Animal unable to bear any weight on the foot, dull and off food. Temperature 102.6°.

*Diagnosis.*—Septic foot with multiple abscesses. Had been lanced and dressed a week previously but progress had been very slow.

*Prognosis.*—Doubtful.

*Treatment.*—Half a tablet prontosil album b.i.d.

*Result.*—Resolution in a week.

### Case 3

*Subject.*—Hunter mare; aged.

*History.*—Very difficult foaling two days previous under far from aseptic conditions.

*Examination* (May 29th, 1937).—Animal dull, off food, rising temperature. Discharge of pus from uterus.

*Diagnosis.*—Puerperal sepsis.

*Prognosis.*—Bad.

*Treatment.*—Intramuscular injections of 5 per cent. prontosil as per chart (*at foot.*)

*Results.*—Complete recovery eight days after first injection.

### Case 4

*Subject.*—Dachshund; male; aged eight years.

*History.*—Animal had been suffering from pyelonephritis for some months and was being treated with an autogenous vaccine. A slight chill caused a general flare up of the condition.

*Examination* (September 10th, 1937).—The animal showed all the symptoms of a generalised septicaemia. Temperature, 104°; pulse very rapid and thin; great prostration. Respirations fast and shallow.

*Prognosis.*—Bad.

*Treatment.*—Intramuscular injection of 5 c.c. 5 per cent. prontosil plus 1 × 7½ gr. prontosil tablets t.d.s. A second injection was given 24 hours later.

*Result.*—Complete recovery from the generalised symptoms 48 hours after the first injection. Temperature and respiration and pulse normal. Appetite good.

(On September 21st, 1937, the same animal had another equally acute flare up. The above treatment was repeated with exactly the same results.)

### Case 5

*Subject.*—French bulldog; female; aged three years.

*History.*—Very difficult whelping November 1st, six of the seven pups being removed with forceps. Uterine contraction practically nil.

*Examination* (November 5th, 1937).—Temperature 103°. Discharge of pus from the uterus; complete loss of appetite.

*Diagnosis.*—Puerperal sepsis.

*Prognosis.*—Bad.

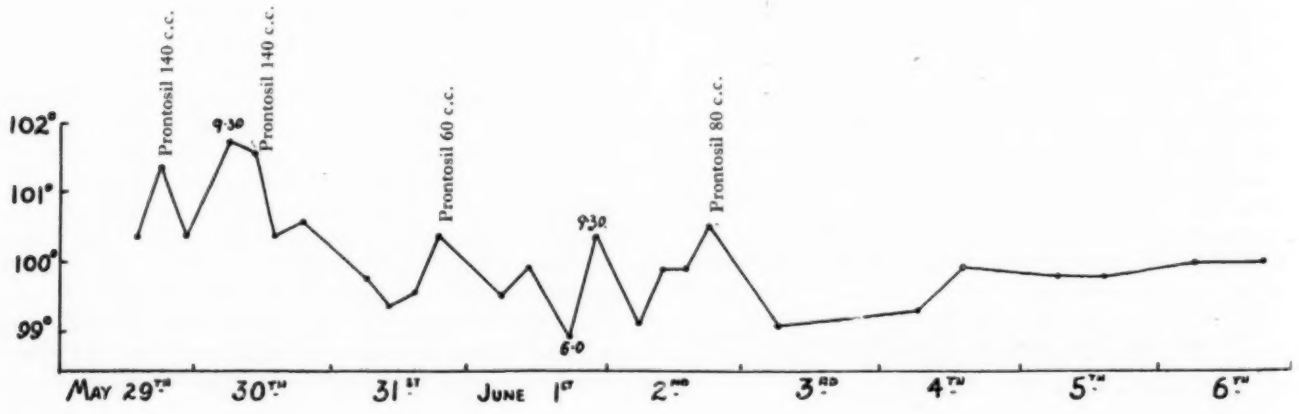
*Treatment.*—Intramuscular injection of 10 c.c. 5 per cent. prontosil. Uterine irrigation. Second injection given 48 hours later.

*Result.*—Forty-eight hours after first injection the temperature was normal. Appetite returned. A second injection was given as pus was still discharging. This ceased after further 48 hours.

### Remarks

Case 1 could have recovered without prontosil, but there is little doubt that resolution was accelerated by the use of this drug.

Case 2 seemed to offer little hope; in fact, the owner wanted the animal destroyed. This common condition needs no explanation, and is one which has always given the writer some anxiety.



C. S. HASELDEN: X-RAY IN FŒTAL DETERMINATION

Cases 3, 4 and 5 undoubtedly owe their lives to the use of prontosil. In the case of the mare it was suggested that the knacker would probably be more useful than a veterinary surgeon ! The gravity of puerperal sepsis in the mare cannot be over emphasised. To watch this subject's steady return to normal from the second day was as amazing as it was gratifying.

Case 4 gave every appearance of being a dying dog when he received his first injection. He is now fitter than he has been for years, and has been continuing his vaccine treatment since October 22nd, 1937. A urine sample on October 27th showed a considerable improvement in the condition of his kidneys.

Case 5 is, in general lines, similar to that of Case 3.

* * * * *

# Two Peculiar Cases of Pregnancy

C. S. HASELDEN, M.R.C.V.S.,
Northwood, Middlesex.

Case 1

The subject was an 18-months-old fox terrier bitch. She came into oestrum April 26th, 1937, and an unsuccessful attempt at mating was made on May 6th. On May 11th the bitch was mated " accidentally " to a dog of her own choice. The following day, May 12th, she aborted four puppies ¾ in. in length. On July 10th she duly gave birth to four more perfectly normal and healthy pups, all of which survived.

Case 2

The subject was a 13-years-old Cairn bitch. The owner complained of the animal continually whining, tearing up cushions, etc.

Examination showed the bitch to be lactating, and abdominal palpation revealed what was confidently thought to be a single foetus. It was decided, however, to X-ray the bitch to make doubly sure, especially as the owner had no recollection of the bitch coming in oestrum, and in view of the gravity of a dog of that age having a single foetus, which is generally abnormally large. The accompanying X-ray photo shows a single foetus with no front legs. The bitch duly delivered the puppy (dead) with no difficulty. The puppy was unusually big, and had only one rudimentary front foot appearing between the shoulder blades.

It is obvious that the absence of front legs simplified the passage of the foetus through the pelvis.

# ABSTRACTS

[**Anterior Luxation of the Lens in the Dog, and its Operative Treatment.** Westhues, M. (1937.) *Münch. tierärztl. Wschr.* **88.** 11. 121-125. (2 figs. 5 refs.).]

Anterior luxation of the lens may be congenital or acquired. Acquired anterior luxation may be primary or secondary. Primary luxation usually arises as a result of repeated trauma; secondary luxation follows disease of the bulb—iritis, cyclitis, staphyloma or, less frequently, glaucoma.

In this contribution the author discusses primary luxation as occurring in fox terriers.

The condition may be uni- or bi-lateral with partial or complete luxation of the lens. Early symptoms and course of the disease are described. The point stressed by the author is that whilst partial or complete luxation of the lens in its initial stages causes little disturbance, apart from that of vision, the disease is progressive. Consequent upon further repeated injury and interference with ocular drainage, a painful inflammatory glaucoma or bulbophthalmos develops with subsequent panophthalmitis and loss of the eye. As soon as luxation is diagnosed extraction of the lens is performed, the primary object being to prevent these untoward sequelae rather than to increase visionary powers. The use of the split lamp or ophthalmoscope may be necessary in the diagnosis of obscure cases, especially where there is opacity of the cornea.

Anaesthesia consists of morphine subcutaneously and a 5 per cent. cocaine solution instilled in the conjunctival sac.

*Operative Technique.*—The bulb of the affected eye is pulled forward and kept stationary by means of fairly strong forceps which grip the scleral conjunctiva under the upper lid. A sharp Von Graefe knife, the cutting edge directed upwards, enters the cornea about 1 mm. from the limbus at about the middle of the cornea. It traverses the anterior chamber parallel to the iris and makes its exit again 1 mm. corneal to the limbus. With a sawing movement a corneal flap sufficient to allow free exit of the lens is made in the upper half of the eye. Gentle pressure with a strabismus hook on the lower half of the cornea expresses the lens. Any prolapsed iris is replaced. 1 per cent. eserine solution is instilled, and the dog is placed in a darkened kennel. After-treatment consists of cleaning away any discharge, and most cases heal in from six to eight days.

This technique differs from that commonly adopted in that the incision is purely corneal. It is usual to create a scleral flap because of

the greater healing capabilities of the sclera. The author, however, claims a quicker, easier operation with less risk of trapping the iris.

Out of 32 operations performed, six were bilateral. In 22 cases the results were entirely satisfactory—the iris acutely reactive to light and a normal vitreous and retina in each case. Of the others, some exhibited a slowly acting or paralysed iris, whilst others, again, showed opacities of the vitreous or detachment of the retina.

It is interesting to note that in no case was infection a post-operative sequel.

C. F.

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**[Brucellosis in Man and Animals in Staffordshire.** Menton, J. (1937.) *Brit. Med. J.* (December 25th, 1937.) 1273-1275.]

Samples of blood serum taken from human patients suffering from or having recently suffered from fever were examined for agglutinins to *Br. abortus*. Of 500 samples 50 gave positive reactions, in 35 instances the titre being high. A further group of 1,000 samples of serum from humans having no history of recent fever were also examined and of these, only eleven gave positive reactions, three having high titres.

Brucella was isolated from only 5 to 6 per cent. of 1,397 samples of milk submitted to biological test. [This figure is extremely low, probably because many of the samples also contained tubercle bacilli which prevent the development of Brucella infection in guinea-pigs.] Fifty-seven samples of goat's milk were found to be free of infection.

E. J. P.

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**[Control of Bovine Mastitis in Austria.** Diernhofer, K. (1937.) *Wien. tierärztl. Mschr.* **24.** 13 and 14. 385-397 and 417-425.]

The position of bovine mastitis in Austria is similar to that in other parts of Europe, there being a high incidence particularly of chronic and non-clinical infections, whilst the economic losses due to streptococcal infections of the udder are serious.

Treatment of individual animals may be confined to the usual local applications, etc., or to drug treatment consisting of udder lavage with preparations such as entozon or rivanol. No final conclusions as to the relative merits of such preparations has yet been reached.

State control of disease consists of an attempt to eliminate all infected animals. A preliminary to elimination is accurate identification of infected animals. The available methods of identification are discussed. In connection with control, vaccination is not recommended either as a prophylactic or curative procedure.

E. J. P.

**[Complications Due to "Picked-up Nail" in the Horse.** Uberreiter, O. (1938.) *Wien. tierärztl. Mschr.* **25.** 2. 64.]

Two cases reported at a veterinary meeting:

(1) A horse was presented for operation 14 days after having picked up a nail. A bone sequestrum ($2\frac{1}{2}\times1\frac{1}{2}\times2$ cm.) centrally perforated by the nail was removed. Six days after operation tetanus supervened: the bacilli were recovered from the wound, and also from the sequestrum. For the first two days treatment consisted of serum, perineurally, epidurally and intravenously. During the following eight days the horse received daily 25 c.c. of a 2 per cent. carbolic acid solution, administered subcutaneously. The tetanic symptoms abated, the operation wound closed and lameness disappeared.

(2) The second case was one in which the perforans tendon in the neighbourhood of its attachment to the pedal bone was necrotic and could be removed with forceps. The horny sole on its medial aspect was under-run with pus. There was separation of the coronary band, giving the impression of shedding of the hoof. Laminitis developed in the opposite foot. Removal of a part of the horny sole on its medial aspect revealed the pedal bone denuded of periosteum. After a time a piece of the *os pedis* ($3\frac{1}{2}\times2$ cm.) separated. Two months after operation the horse was shod with a protective shoe and sent home. Later the owner reported the horse back to normal work.

In the discussion that followed, the author on being asked if the serum or the carbolic acid had cured the horse of tetanus (Case 1), said he could not be certain. He felt, however, that the serum had been advantageous in that the first dose of serum had checked the symptoms.

Another factor influencing the case, and probably contributing to its successful end, was the fact that the port of entry of the infection was known and could be treated locally. By infiltrating the local nerve (plantar) with serum, and by epidural administration, an attempt had been made to get at the seat of the nervous disturbance.

C. F.

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**[Aetiology of Heart Failure in Pigs.** Pallaske, G. (1938.) *Tierärztl. Rundsch.* 4 and 5. January, 1938. 53-60 and 69-72.]

The author notes frequent and great loss of life in pigs due to heart-apoplexy, or genuine heart-failure. In many cases single pigs die, and in others there are several deaths tending to cause the pig owners to suspect some contagious disease or poisoning. Death usually occurs without any preliminary symptom manifesting itself and in some cases pigs may have

been observed to be ill one or two days before death. The noticeable symptoms consist in sudden trembling, staggering and sudden squealing, frothing at the mouth and nose, slow short breath, followed by death. In some cases emergency slaughter is resorted to.

*Post-mortem* examination is not always negative, and there are often an oedema of the lungs, sub-pleural haemorrhages in the lungs from suffocation, and similar haemorrhages sub-epicardially along the coronary and longitudinal furrows of the heart, whilst there may also be patchy sub-endocardial haemorrhages in the region of the papillary muscles and the heart septum. Further signs of heart weakness are congestion of the organs in the splanchnic region and an atonic hyperaemia of the skin, which may be bluish-red in colour. Often the right auricle and ventricle are filled with clotted blood and are enlarged. When the chest cavity is opened the heart appears enlarged owing to an abundance of blood. The myocardium may be somewhat brown-red or lighter in colour than normal. In piglets, histological lesions such as a " tigered " heart, and a patchy degeneration are observed, quite similar to that found in " diphtheria heart " in man. [Probably by this is understood the microscopic areas of hyaline change found in the muscle, with leucocytic infiltration, especially in the auriculo-ventricular bundle, and which may cause acute heart-block. Necrosed fibres are absorbed and replaced by connective tissue, recognised occasionally as pale areas in the myocardium.]

The author concludes from his findings that the cause of the condition is the limited possibility of exercise and lack of sunlight and fresh air. Intensive feeding methods naturally prevent pigs from obtaining the necessary exercise, and Pallaske maintains that allowing pigs to run out helps to train and exercise the heart. The constant fattening of the pig, receiving no exercise, results in a heart which is unable to stand such strains as are caused when pigs occasionally run about whilst the sty is being cleaned, or during transport, loading and unloading, etc.

The mode and kind of feeding may also influence this heart condition, but a protein poisoning is not a factor as a rule. The act of feeding may contribute to death from heart failure, as a full stomach disturbs the haemodynamic condition in two ways:

(1) Mechanically, when an over-loaded stomach hampers the main breathing muscle (diaphragm), whereby the pressure of the circulation and regulation of the circulation through the lungs and heart are influenced during inspiration and expiration. If, after a heavy meal, the heart has to do some heavy work, as is the case during loading, transporting or driving, etc., heart failure and death is often observed.

(2) The reflex disturbances seem to be of greater significance, as parasympathetic fibres of the vagus nerve may have a vaso-constrictor effect on the coronary circulation, and a congestion or an oedema of the lungs may also develop.

Fattening and decreased exercise lead to a lack of heart training and an underdevelopment of the heart, and the condition of fattening in itself represents a deterioration of the circulation and predisposes to heart failure. The condition can only be controlled by avoiding unnatural conditions in rearing, by applying rational methods of feeding, plenty of exercise, fresh air and sunlight from youth onwards.

D. J. A.

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[**Bone Lesions Seen in Sheep Carcases.** (Trans. title.) Ubach. *Revista Med. vet. Buenos Aires.* **18.** 7. 449-470.]

This article would be noteworthy if only for the excellence of the 24 photographs illustrating bone lesions seen in the abattoirs of La Plata.

Osteoarthritis deformans, apparent even to the naked eye, occasions only a slight degree of lameness and no loss of condition. The lesion illustrated is at least nine inches in circumference.

Perforation of the frontal bone by *coenurus cerebralis* is uncommon. Ubach pictures a sheep's skull in which the right frontal bone has almost entirely disappeared. The *ante-mortem* symptoms of such an extensive lesion, however, were merely tumefaction in the supraorbital region of the right side and a purulent discharge from the right nostril.

A very extensive lesion of rarefactive osteomyelitis of the inferior maxilla is shown and attributed to caries of the first molar tooth.

J. A. P.

## ROYAL SANITARY INSTITUTE CONGRESS

The preliminary programme is now issued of the Health Congress of the Royal Sanitary Institute to be held at Portsmouth from July 11th to 16th, 1938, under the Presidency of the Earl of Bessborough.

Following are the officers of Section D (Veterinary Hygiene): *President*, Dr. F. C. Minett, Director, Research Institute in Animal Pathology, Royal Veterinary College; *Recording Secretary*, Lieut.-Colonel J. A. Dixon, Chief Veterinary Officer, Leeds; *Local Secretary*, Mr. R. Scoular, Portsmouth. The first meeting of the Section will be held on the morning of Thursday, July 14th, when the President of the Section will deliver his address and the subject of meat and food inspection will be discussed. On the morning of the day following the Section will meet again for a discussion on the tuberculosis (attested herds) scheme.

The Veterinary Record
April 9th, 1938.

# The Agricultural Research Council

THE Agricultural Research Council is a body which has done much for research into the diseases of animals and as a profession we should hold it in the highest esteem. Our appreciation for the Council, however, is unfortunately marred by disappointment over its apparent neglect of the wealth of experience and advice which the profession could the more readily offer if its representation upon the Council exceeded its present strength. A representation of one in fifteen upon a Council whose work is so largely associated with veterinary problems, does not seem to us to be just. No one man can be expected to advise the Council adequately on all points of view associated with veterinary knowledge, and it is an undoubted disservice to our colleague, Mr. John Smith, to place him in such an invidious position. At an early stage of the general survey of agricultural research the Council came to the conclusion that the most urgent subject of enquiry for the economic well-being of the British farmer was that of animal diseases; and in view of this decision it seems still more surprising that the veterinary representation on the Council remains so small.

On general grounds it has been stated that the A.R.C. would ride to fame on the backs of the veterinary profession. Though we could not agree with this sweeping criticism, yet as the major part of the functions of the A.R.C. concerns problems of animal disease and research, the reputation of the Council will depend in large measure upon its success in this field. It is still incomprehensible to most people outside the Council why only one veterinary surgeon should be included in its membership. The suggestion that veterinary workers at research institutes are too dependent upon the Council to form part of it can scarcely explain no further appointments as there are many veterinarians at the colleges, in other institutions and in practice, who are not so dependent upon the Council and could in fact tender it most useful advice. The necessity for an intimate first-hand knowledge of animal diseases as they arise in the field, in formulating schemes of research work, either extensive or intensive, would seem to point to the necessity for the inclusion of a number of practitioners with special knowledge upon each of the *ad hoc* committees. Unfortunately the personnel of the A.R.C. committees is not given in the booklet reviewed on page 437 of this issue but reference to the Council's report for the period 1933-35 does not, except for two or three of the technical committees, raise the confidence of the profession in the Council's work on animal diseases. We have every sympathy with the aims of the Council and we know their intentions deserve every praise, but we cannot but conclude that they are mistaken in their apparent belief that neither the work of the Council itself nor that of the profession warrants a greater veterinary representation on the Council and its committees. We would suggest that the Council would do well to consider the great desirability of consulting with the Council of the N.V.M.A. when next it has occasion to review the constitution of its various committees or when it becomes necessary to appoint others. We suggest that in some such way as this a far closer and mutually advantageous relationship would be established, and the comparative or complete lack of liaison and sympathy of each for the other, which we feel has hitherto needlessly characterised these two bodies, would be dispelled. The wealth of accumulated first-hand knowledge and experience at present locked up in the profession, would become readily available to guide and aid the Council, and we ourselves would no longer feel powerless to offer advice, make helpful suggestions, or fulfil those other functions in the co-ordination of the fight against animal disease, which we might legitimately be expected to perform.

The advancement of applied veterinary knowledge has been greatly stimulated since the inauguration of the Agricultural Research Council but the condition whereby it appears that research funds cannot be given in support of research not directly connected with the "most important needs of industry" seems to us to be unsound. For it appears that under the constitution of the Council no provision is made for research on problems of a fundamental or basic nature: it must be applied work only. This restriction, doubtless not the fault of the A.R.C., is to be deplored, since it is, of course, well known that applied research is built upon a foundation of fundamental research, and there are numerous problems of agricultural and veterinary importance which cannot be solved until further fundamental knowledge has been acquired. Another apparent restriction—the

avoidance of undesirable duplication of research work—is doubtless a necessary one in this material world, but where two or more able workers are engaged or interested in a particular problem it would take an omniscience greater than that possessed by most mortals, to decide which to encourage and which to restrict. It is interesting to note that much of the undoubted progress made in many branches of scientific knowledge, as for instance that made recently by Russian workers on the problem of artificial insemination, has been achieved by opposite methods. A single problem may engage the attention of triplicate or quadruplicate workers or teams of workers. The pooling of results so obtained has frequently resulted in a completed answer to the problem in a far shorter space of time than could possibly have been achieved had there been no such multi-activity.

In conclusion, we would assure the Council that in offering it our criticisms of certain of the faults, which are in our view important, we are not unappreciative of all it has already done for the advancement of veterinary knowledge. We are grateful for all the work of the Council in this direction and only make our suggestions because we feel certain that the progress of veterinary knowledge can be further accelerated by their adoption.

## DANGEROUS DRUGS ACTS: AUTHORITY FOR TEACHING INSTITUTIONS

The Home Secretary has made an Order, dated March 1st, 1938, approving certain institutions for the purpose of the Regulations made under the Dangerous Drugs Act, 1920. The approval of any institution under this Order shall remain in force only so long as the Secretary of State is satisfied, either by the result of inspection by any person authorised by him for the purpose or otherwise, that the following conditions, and the additional conditions specified in the schedules, are complied with:—

The person in charge of the laboratory

(1) shall keep all supplies of the drugs and preparations under lock and key and in his own charge, and shall only issue to persons working in the laboratory such quantities as shall be immediately required in the course of research or instruction ; and

(2) shall keep records of all amounts of the drugs and preparations purchased by him in the forms prescribed in the First Schedule to the Raw Opium Regulations, 1937, and in the Second Schedule to the Dangerous Drugs Regulations, 1937, and shall furnish to the Secretary of State whenever required a copy of these records together with a statement of the amounts of each of the drugs and preparations remaining in his possession.

The names of the various institutions are set out in three schedules. Copies of the Order (Dangerous Drugs, Approved Institutions, No. 20 Order, 1938) may be obtained from the Stationery Office, 1d. each.

# STATE VETERINARY SERVICE

## Mr. D. A. E. Cabot to Succeed Sir John Kelland as Chief Veterinary Officer

We are informed by the Ministry of Agriculture, as we go to press, that Sir John Kelland, M.R.C.V.S., having reached the retiring age, will relinquish his post as Chief Veterinary Officer to the Ministry on June 1st. The Minister of Agriculture has appointed Mr. D. A. E. Cabot, M.R.C.V.S., Deputy Chief Veterinary Officer, to succeed Sir John and, in his place, Captain Robert Simpson, F.R.C.V.S., D.V.S., Superintending Veterinary Officer, will be promoted to be a Deputy Chief Veterinary Officer.

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### Mr. D. A. E. CABOT, M.R.C.V.S.

After qualifying in 1910, Mr. Cabot was appointed House Surgeon at the Royal Veterinary College, and joined the staff of the Ministry (then the Board) in 1911. In the following year, he visited India to assist in the work of the Foot-and-Mouth Disease Committee (1912) which was carried out at the Bareilly branch of the Imperial Bacteriological Institute, Muktesar.

Mr. Cabot succeeded Sir John Kelland as Secretary of the Foot-and-Mouth Disease Committee, 1919-20, the work of which was done in a converted sloop stationed at Harwich.

Mr. Cabot is a member of the Standing Committee on Animal Health of the Colonial Advisory Council of Agriculture and Animal Health. He has represented Great Britain at meetings of the International Veterinary Bureau (Office International des Epizooties) Paris.

Since 1932, Mr. Cabot has held the post of Deputy Chief Veterinary Officer.

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### Captain ROBERT SIMPSON, F.R.C.V.S., D.V.S.M.

Captain Simpson, who was, in 1920, among the first recipients of the newly-instituted Diploma in Veterinary State Medicine, was awarded his Fellowship in that year after a period of post-graduate study following distinguished service in the Great War. The next four years were divided between the Scottish Board of Health and the Ministry of Agriculture, and in 1924 he received the appointment of Chief Veterinary Officer for the County of Cumberland.

Last year Captain Simpson was one of the three "key-men" appointed by the Ministry to assist, during the transition period, in the transfer of personnel and functions from the Local

Authority to the State Veterinary Service under the provisions of Part IV. of the Agriculture Act, 1937. In this capacity he has been stationed at the Ministry's Headquarters in Whitehall since that time.

Captain Simpson is, of course, Past-President of the N.V.M.A., and members of the Association will have vivid and grateful recollections of his notable year of office (1936-37). This was the year that witnessed the transference of the Offices of the Association from Gray's Inn to larger premises in Gordon Square. The foresight and powers of leadership he then displayed were, later in the year, to prove invaluable again, following the issue by the Government of its long-term agricultural policy, which included provision for a centralised veterinary service.

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## SIR JOHN KELLAND'S OUTSTANDING SERVICES TO THE MINISTRY OF AGRICULTURE

In our issue of May 15th, 1937, in conjunction with the announcement that on the occasion of His Majesty's Coronation, the honour of Knight Bachelor had been conferred on him, there was published an outline of Sir John Kelland's official career.

During his period of service notable advances have been made in the control of notifiable diseases and in veterinary administration generally.

Chief among the plagues that are liable to assail our livestock industry is foot-and-mouth disease, a source of anxiety both to the administration and to the private practitioner who must ever be on the alert for the early signs of a disease that, under modern conditions of trade in animals, has such a remarkable capacity to spread to a catastrophic degree, and which is suppressed successfully only by prompt application by a highly efficient staff of essential measures dictated by science and experience. Exposed as this country is, to repeated risks of invasions, certain of the occurrences of disease have presented a particularly threatening character of which two may be mentioned, the very serious position in Cheshire in the winter of 1923-24 and the recent series in the South of England.

Sir John Kelland has been closely associated with these campaigns, either at Headquarters, or, as in the Cheshire epidemic, in directing local operations. He has also been associated with the investigational aspect of the disease having for some years been a member of the Foot-and-Mouth Disease Research Committee.

The initial enquiries which led to the discovery of rabies, in 1918, were made by Sir John and led to the very successful campaign against a disease from which the country had been free for a number of years and which now only occurs occasionally among imported dogs in quarantine. During this campaign, which lasted about fours years, a very close liaison was established between the Ministry and the Ministry of Health and it was particularly satisfactory to be able to record at its termination, that of the many persons who had been bitten by rabid animals none had died of hydrophobia. The public health responsibilities indirectly imposed upon the veterinary service had thus been satisfactorily discharged.

In addition to rabies, epizoötic lymphangitis and glanders have been eradicated during the years 1902-1938, the span of Sir John's service with the Ministry, and four years ago he initiated a comprehensive attack on sheep scab in areas where the control of the disease was hindered by geographical considerations; the incidence of the disease has been substantially reduced as a result of the measures then adopted.

It is an interesting fact that though the enactments and regulations that have been passed for the protection of animals fall within the province of the Home Office certain duties have been entrusted to the Ministry of Agriculture by Parliament and these include the exportation of horses and the transit of animals. The former matter was for years a subject of controversy and severe criticisms of the trade were made in the Press and on the platform but it was always readily admitted by all responsible authorities that the trade was conducted strictly in accordance with the law. This subject and that of the transit of animals by sea—and it is seldom realised that nearly two million head of stock are landed on our shores every year—are matters in which Sir John has been deeply interested and he was to a large extent responsible for the regulations that were brought into force a few years ago. He may be justifiably proud of the conditions under which animals are brought to this country, conditions that are not surpassed elsewhere, and the suitability of which is exemplified by the insignificant number of casualties that an observant authority records and duly reports.

It is no doubt peculiarly gratifying to Sir John to have seen the new national veterinary service inaugurated during the last weeks of his association with the Department. He had long foreseen that circumstances would impose a reorganisation of the multiple veterinary services in the country and much is due to his sound advice and wide experience in the planning and building of the new organisation that

is destined to take such an important part in the future of the livestock industry and to afford still greater benefits to the health and well-being of the community. The growth of the Attested Herds Scheme, disappointingly slow at first, but rapid in recent months, is encouraging to those who would see the elimination from our herds of those preventable diseases which, because of their insidious nature, have been allowed to spread so widely to the great loss of agriculture and its associated industries.

Sir John Kelland has a very wide circle of professional friends both in this country and abroad and they will join with us in wishing him a long and happy retirement.

## PROTECTION OF ANIMALS IN NORTHERN IRELAND

A demand that legislation passed at Westminster dealing with the protection of animals should apply to Northern Ireland was made at the one hundred and first annual meeting of the Ulster Society for Prevention of Cruelty to Animals when the following resolution was passed: "That this meeting urges the Government of Northern Ireland to take such action as will ensure that humane Bills affecting animal welfare introduced into the Imperial Parliament shall apply to Northern Ireland, in view of the fact that conditions affecting animals in the Six Counties are practically similar to those in Great Britain, and expresses the hope that their representatives in the Imperial Parliament will support our Government in regard to this matter."

The mover of the resolution (Mr. W. H. Letson) said that three Acts of Parliament were placed on the statute book of the Imperial Parliament during 1937—Exportation of Horses Act, 1937; Cinematograph Films (Animals) Act, 1937, and Quail Protection Act, 1937. Not one of those Acts or the Bills which were considered applied to Northern Ireland, although the Ulster Society worked hard for their success, even to the extent of having petition forms signed on behalf of the English societies. It was understood that Bills could be drafted so that they could apply in Northern Ireland by an Order in Council and that amendments containing provisions relating to the Province could be made in committee. If matters continued as at present, Northern Ireland would soon be a long way behind Great Britain instead of keeping "in step."

Mr. T. J. Campbell, K.C., M.P., who seconded, said it was manifestly unfair that in the matter of legislation governing the welfare of animals there should be a difference between Great Britain and Northern Ireland.

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The Bill for permitting osteopaths, chiropaths and drugless healers to use the designation doctor was thrown out in Ottawa largely because of a protest by Dr. Herbert Bruce, lately Lieut.-Governor on Ontario, who described it as iniquitous.

# REPORT

[**Report on the British Health Services.** Published by P. E. P. (Political and Economic Planning), 16, Queen Anne's Gate, London, S.W.1. Bound in cloth, 10s. 6d. net.]

When one turns the pages of this volume one is amazed at the enormous field which is covered by the health services of a modern democratic nation. The care of the sick and the prevention of disease in man is a formidable task but when it is realised that our health services also embrace such features as nutrition, genetics, physical education, industrial health, and food services, it is not to be wondered at that a survey of these services fills the pages of a large tome. P.E.P. have in the above volume of 430 pages, produced, in as complete a form as possible, an interesting and instructive assembly of the essential facts dealing with the nation's health services.

The book is excellently arranged and indexed.

It is perhaps only natural that the volume is mainly occupied in describing the services which are concerned with the provision of treatment for the sick man or woman and the immediate measures which are taken to ensure their health or their recovery from disease.

We have no doubt that this excellent survey will prove of great value to the medical profession and also to the tax-payer who seeks information as to how the £200,000,000 of his money is spent annually in the public health services.

It is strange that in such an exhaustive survey there is little account of the foods derived from animal sources or of the measures taken to ensure their purity. Few nations leave such essential points to chance as do the British. The purity and safety of the nation's food supply is of paramount importance. It is surely better to eliminate this source of potential disease than to elaborate great schemes for the treatment of a patient who has contracted an illness from such a source.

In this sphere the veterinary surgeon is indispensable in the public health services and it is hoped that this fact will be recognised by the "powers that be." It is in no carping spirit that note is taken of the complete absence of the word "veterinary" from the excellent index and it may be hoped that before the next edition of this volume is produced the veterinary services will have secured their due recognition and that P.E.P. will be able to give due prominence to their work.

J. McC.

## N.V.M.A. DIVISIONAL REPORT

# Mid-West V.M.A.*

### ANNUAL MEETING AT BRISTOL

The annual meeting of the Mid-West Division of the N.V.M.A. was held at the Royal Hotel, College Green, Bristol, on Friday, January 21st, 1938, with the President (Mr. S. V. Golledge) in the Chair.

The following members and visitors were present: Messrs. C. S. Adams, W. C. Auld, W. A. Austin, M. Baird, A. J. Baxter, F. L. Clunes, J. C. Coleman, A. E. Gachet, J. S. Garside, C. R. Golledge, L. St. Bel Golledge, F. B. Hardy, Lieut.-Colonel G. E. Henson, Messrs. J. R. Hewer, D. W. Menzies, R. Moore, T. J. Patterson, C. E. Perry (Hon. Secretary), S. H. Pettifer, J. C. S. Powell, C. J. Pugh, A. E. Roberts, H. S. Robinson, B. Sayer, W. R. Watson, H. C. Wilkins and Professor J. G. Wright.

*Visitors.*—Messrs. T. P. Duffy, L. H. Ellis, J. A. Matheson and W. J. B. Watson.

The President said that since the last meeting, the Association had lost one of its oldest members by the death of Mr. Webster, of Warminster, and he asked the members to stand in silence as a token of respect. The Secretary said he had asked the President to represent the Association at the funeral, and had sent a wreath, and also a letter of sympathy to Mrs. Webster. A letter of thanks had been received from Mrs. Webster and family.

The minutes of the last general meeting were taken as read and signed by the President.

Letters of apology for inability to attend were received from Messrs. Eardley, Rees and Captain Howard Jones.

A letter was read from the Royal Sanitary Institute, inviting the Association to send a delegate to the Health Congress at Bournemouth, in July next. After discussion, it was decided not to send a delegate this year.

Treasurer's Report.—Colonel Henson's report showed a balance in hand of £100 3s. 11d. together with one Consol (£100), in the General Account. In the Benevolent Fund, there was a balance of £34 6s. 10d. with three Consols invested. This was considered a very satisfactory report, and on the proposition of Mr. Robinson, seconded by Mr. Watson, it was decided to purchase one more Consol.

#### Secretary's Report

The Hon. Secretary's report was as follows:—

"During the year 1937, we have elected three new members (Messrs. Perry, Baird and Auld), we have had one resignation (Mr. Seldon), and have lost three members by death (Messrs. Hobbs, Sayer and Webster). Nine members have dropped out under Rule 13, leaving our present membership at 60, plus nine honorary members.

"Four General Meetings and three Council meetings have been held, the average attendance being 20 at General Meetings and eight at the Council meetings.

"At our General Meeting, in January, at Bristol, Dr. McCunn gave us a most interesting and educative paper on "Observations on the Racing Greyhound," for which our best thanks are due. At Bath, in April, Messrs. Margarson, Baxter, Golledge and Dr. Scott, opened discussions on "Entozon," "Wheat Germ Oil," "Davenil" and "Colchicine" respectively, and we are much indebted to those members.

"The Summer Meeting was held at Bournemouth, during the Congress week, but owing to it clashing with the Veterinary Practitioners' Meeting, very few were able to attend. At Bath, in October, we had a most instructive paper from Mr. Gould, of Southampton, on "Observations on the Feeding and Management of a Dairy Herd," and I should like to thank him on behalf of the Association for giving us such a practical paper."

#### Election of Officers

The following officers were elected for the ensuing year:—

*President.*—Mr. H. S. Robinson.

*Vice-Presidents.*—Messrs. E. Brown, A. J. Baxter, S. V. Golledge and C. J. Pugh.

*Treasurer.*—Colonel Henson (re-elected).

*Secretary.*—C. E. Perry (re-elected).

*Auditors.*—Messrs. Margarson and Watson (re-elected).

*Council.*—The following members were elected to serve on the Council: Messrs. G. E. Henson, J. R. Barker, A. J. Baxter, H. S. Robinson, W. Tweed, S. V. Golledge, C. J. Pugh, C. R. Golledge, J. R. Hewer, J. C. Coleman, T. J. Margarson, W. R. Watson, R. Moore, C. E. Perry, D. W. Menzies, F. Hardy and Dr. Scott.

*Victoria Benevolent Fund.*—A letter was read from the Secretary of the Victoria Benevolent Fund, thanking the members for the contribution of £5 collected in their box. On the proposition of the Secretary, seconded by the Treasurer, it was agreed that the Association should send £5 to the Victoria Benevolent Fund in the name of R. Hudson, Esq., *in lieu* of expenses at the Bath Meeting.

*Election of New Member.*—Mr. W. J. B. Watson, proposed by the Treasurer and seconded by the Secretary, was unanimously elected into membership.

*Film Display.*—Professor J. G. Wright, of the Royal Veterinary College, demonstrated a film, exhibited by Messrs. Smith and Nephew, "The

*Received for publication March 16th, 1938.

Treatment of Bone Fractures in the Dog and Cat." Having seen the film, members asked Professor Wright a number of questions on technical points, which he very kindly clarified.

*Clinical Demonstration.*—Mr. Clunes presented a case of upward and forward luxation of the right hip in a Welsh terrier, of four days' duration.

Professor Wright outlined his method of examination and diagnosis. General anaesthesia by the injection of nembutal was induced, and reduction affected. Professor Wright said that prognosis in cases of simple reduction should be guarded, as only about 30 per cent. of the cases remained reduced.

One month after the operation, Mr. Clunes reports that the joint has remained in its place, and the dog now uses the leg as well as the other.

C. E. Perry, *Hon. Secretary.*

## In Parliament

The following questions and answers have been recorded in the House of Commons recently:—

### Foot-and-Mouth Disease

In the House of Commons on Monday last, Mr. W. S. Morrison, Minister of Agriculture, informed Brigadier-General Clifton Brown that the recent series of outbreaks of foot-and-mouth disease commenced in October, 1937. The disease was successfully eradicated by the middle of January in the group of outbreaks affecting Wiltshire and adjoining counties. The cost of compensation for animals slaughtered in respect of the whole series amounted to £400,000.

"Unfortunately" (continued the right hon. gentleman) "fresh centres of disease have appeared in Wiltshire (Calne district) on March 26th, in Glamorgan (at Pengam) on March 27th, and during the week-end at Birmingham and Nottingham, and in Northamptonshire. The Glamorgan outbreak appears to be an isolated case, but in the Calne area there have been twelve new outbreaks, and I am sorry to say that the information which has been obtained with regard to the outbreaks in Birmingham, Nottingham and Northamptonshire, indicates the possibility of a very widespread area of infection.

"There is reason to suppose that infection may have been present in and distributed from Banbury Market, on March 24th, and, if this is confirmed, a very serious situation will have arisen in view of the extensive distribution of stock from that market. An Order controlling movement of stock over a large part of the country, from Yorkshire and Lancashire down to the South Coast (but possibly excluding Wales) may prove to be necessary."

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### Poultry Industry

Mr. De la Bere asked the Minister of Agriculture whether he will now make a statement as to the results of the research work carried out in connection with the diseases of poultry?

Mr. W. S. Morrison: The progress of research in poultry diseases, in common with all other branches of agricultural research, is described in the volume entitled "Reports on the work of Agricultural Research Institutes in the United Kingdom," published annually by His Majesty's Stationery Office, and in the biennial reports of the Agricultural Research Council.

# Notes and News

The Editor will be glad to receive items of professional interest for inclusion in these columns.

## Diary of Events

April 11th.—Meeting of the Editorial Committee, N.V.M.A., at 36, Gordon Square, W.C.1, 4 p.m.

May 5th.—Last day for nomination for election to R.C.V.S. Council.

May 16th.—R.C.V.S. Examination in Animal Management begins.

May 19th.—R.C.V.S. Annual Report and voting papers issued.

May 26th.—Last day for return of voting papers, R.C.V.S. Council election.

June 2nd.—R.C.V.S. Annual General Meeting. Election of Council.

June 9th & 10th.—D.V.S.M. written examination.

June 13th.—D.V.S.M. oral examinations begin.

June 22nd & 23rd.—R.C.V.S. Committee Meetings.

June 24th.—R.C.V.S. Committee and Council Meetings.

June 30th & July 1st.—R.C.V.S. written examinations.

**Aug. 21st-25th.—Thirteenth International Veterinary Congress, Zürich.**

**Aug. 26th-27th.—Thirteenth International Veterinary Congress, Interlaken.**

**Sept. 5th-9th.—Annual Congress, N.V.M.A., at Glasgow.**

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## FOOT-AND-MOUTH DISEASE: MANY NEW OUTBREAKS

### Danger of Widespread Infection

The hopes that the recent marked diminution in the number of outbreaks of foot-and-mouth disease indicated the approach of the end of the epidemic as far as this country was concerned have received a serious set-back since our last issue.

Nevertheless, if full co-operation is given by the stock-owner during the next week or two, particularly by reporting any likely symptoms of trouble, there is every reason to anticipate that England will have a clean bill of health again very soon.

Outbreaks among cattle in the Midlands were confirmed by the Ministry of Agriculture on Saturday of last week. One centre was at Birmingham, the infected area lying in the counties of Stafford, Warwick and Worcester, and the other at Nottingham, the infected area in this case being in Derby, Nottingham and Leicester.

Further cases which were confirmed by the Ministry of Agriculture on Monday, made it necessary to prohibit the movement of cattle, sheep and pigs, over almost the whole of England.

The Ministry of Agriculture's statement declared:—

"All stock-holders are earnestly requested to examine their stock and to report any suspicious symptoms immediately to the police. Particular attention should be paid to animals which may have been purchased at any of the following markets, all of which are feared to be involved:—

Banbury, on March 24th, 29th and 31st.
Kettering on March 25th.
Mansfield on March 28th.
Nottingham on March 28th and April 2nd.
Rugby on March 28th.
Thrapston on March 28th.
Northampton on March 30th.

"It is because some of these markets have a wide distribution and of the subsequent danger of widespread infection that the Minister of Agriculture has made a standstill order applying to the whole of England except the counties of Northumberland, Durham, Cumberland, Westmorland, Devon and Cornwall, and excluding also Wales and Monmouth. This Order prohibits all movement of cattle, sheep, pigs and goats, except by licence, and also prohibits the holding of markets of animals unless such are licensed for the exposure of fat stock for immediate slaughter."

Another case of foot-and-mouth disease occurred on Monday in Nottingham. A fat beast awaiting slaughter in the cattle market lairage was found to be suffering from the disease, and 43 beasts in the lairage were destroyed.

An outbreak was also confirmed at Byfield, Northants, and a further outbreak was reported at Barcheston, near Shipston-on-Stour. Other outbreaks have occurred at Chorley, near Cumnor, Oxford, and West Haddon.

According to the official announcement the disease had been confirmed in six places in the preceding 36 hours.

Earlier in the day Mr. W. S. Morrison stated in the House of Commons that information which had been obtained with regard to the outbreaks in Birmingham, Nottingham and Northamptonshire, indicated the possibility of a very widespread area of infection.

Outbreaks were confirmed on Wednesday among cattle at Pewsey, Wilts, at Cumnor, Oxon, and at Ravensden, Bedfordshire, but no further cases of foot-and-mouth disease were reported in the Nottingham area.

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## R.C.V.S. OBITUARY

Ogden, George Oscar, Capt. R.A.V.C. (T.F.) (retd.), 46, Upperton Road, Eastbourne. Graduated London, July 14th, 1905. Died April 5th, 1938; aged 56 years.

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### The Late Mr. William Wordley, M.R.C.V.S.

The death of Mr. William Wordley, M.R.C.V.S., of the Pantiles, Tunbridge Wells, recorded with much regret in our last issue, took place in a London nursing home, following an operation. Mr. Wordley, who was 67 years of age, had practised in Tunbridge Wells for many years. Qualifying from the London College in 1896, he practised at Speldhurst for nearly 20 years, until the War, when he became lieutenant in charge of an Army veterinary hospital. After the War he set up a practice in Tunbridge Wells, and was official veterinary surgeon to the local branch of the Royal Society for the Prevention of Cruelty to Animals, in which capacity he gave evidence for the Society in many Court cases.

Mr. Wordley was a great animal lover and an expert horseman, frequently following the Eridge Hunt. In latter years he took a keen interest in fishing.

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## DEATH OF DR. SABOURAUD

The Paris correspondent to the *Lancet*, writing in the March 5th issue, comments that the announcement of the death of Dr. Raymond Sabouraud will surprise many who, having been familiar with his name and reputation as a dermatologist since their earliest youth, must have assumed that he had passed on long ago. Yet he is the same man whose work on ringworm and allied skin diseases has long been a classic. He was honorary director of the Laboratory of the Town of Paris at the Saint Louis Hospital, and President of the French Association of Dermatologists. He was also no mean sculptor, and he was much in demand for the engraving of medals struck in honour of members of the medical profession.

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## PERSONAL

*A Disclaimer.*—It has been brought to our notice that travellers, purporting to represent the Consolidated World Research Society, are visiting various veterinary surgeons and supporting their efforts to secure sales of certain books by alleging that Dr. W. R. Wooldridge has benefited from

the advice, etc., that they have offered. Dr. Wooldridge wisnes to state that he has received no useful advice from this Society or its representatives and that the use of his name in connection with it is absolutely without authority and against his personal wishes.

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*On Leave.*—Mr. R. Dunwoody, M.R.C.V.S., Nigerian Veterinary Service, has arrived in this country on leave.

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## REGISTER OF ATTESTED HERDS

The Register of Attested Herds in Great Britain which has just been published gives particulars of the herds on the Register on December 31st last. At that date there were 812 attested herds in England and Wales and 640 in Scotland, as against 346 and 452 respectively five months earlier when the Register was last published. The herds in England and Wales comprised 37,000 cattle and those in Scotland 50,500 cattle, a total of 87,000 cattle.

The progress made towards the eradication of tuberculosis was actually much greater than these figures suggest, since the owners of several hundred herds were at the date mentioned testing their cattle, with financial assistance from the Government, with a view to the detection and elimination of reactors. Many of these herds have since become attested.

The Register just issued gives the addresses of the owners of attested herds and particulars of the breeds of cattle constituting the herds. Copies of the Register may be obtained on application to the Ministry of Agriculture and Fisheries, 7, Whitehall Place, London, S.W.1, or to the Ministry of Agriculture and Fisheries (Animal Health Division, Scottish Branch), 15, Moray Place, Edinburgh, 3.

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## LEGAL NOTES

*Claim Against Medical Defence Union.*—In the King's Bench Division of the High Court, before the Lord Chief Justice and a special jury (action heard on March 28th and 29th), His Lordship withdrew from the jury the case in which Miss Ethel Mellor, of Welbeck Street, W., claimed damages from the Medical Defence Union, Ltd., of Bedford Square, W.C., for alleged defamation of character.

The plaintiff, who is an Associate of the Royal College of Science (of Botany), London; Doctor of Science (Natural Science Division) of Sorbonne, University of Paris; and Doctor of Osteopathy of an American college, and practises as an osteopath in Welbeck Street, claimed to be entitled to be called "Dr. Mellor." She said that she was personally and academically known and addressed as "Doctor," although her door-plate bore only her name and the prefix "Miss." She admitted that she was not, and never had been on the Medical Register and that she held no qualification for admission to that register.

She used, however, a descriptive card which bore the name: "Dr. Ethel Mellor, A.R.C.S., D.Sc., D.O., Osteopathic Practitioner, 13, Welbeck Street, London, W.1."

The plaintiff alleged that the defendant union had falsely spoken and written and published of her, and of her in the way of her calling, defamatory matter in letters sent to her by the Union through its Secretary during April and May, 1936, and on October 20th, 1936.

The first letter, which was dated April 3rd, 1936, was as follows:—

Dear Madam.—My attention has been drawn to a card on which appears your name with the description or designation "Dr." preceding your Christian name . . . . In view of the recent decision which was secured at Brighton in the Deacon case I should be glad if you will advise me that you will in future refrain from using this designation, which has been held to be an infringement of section 40 of the Medical Act, and which can be confusing and misleading to the public.

Many other unregistered practitioners who are practising as osteopaths have already indicated their willingness to come into line with the recent decision, and have amended their plates and notepaper accordingly.

The plaintiff said that by that letter, and other letters which followed, the Union meant that she had no right to her title of "Dr." and was unlawfully, wiltully and falsely using it, implying that she was a doctor of medicine or a registered medical practitioner; that she was dishonourable; had no learning, qualifications, experience, or credentials; was actuated by base motives; and used the title of "Dr." for fraudulent purposes.

The defendants denied the allegations or that they published the letters, which, they said, were sent to the plaintiff through the post in closed envelopes. They denied the innuendo, and pleaded that the words complained of were privileged and were incapable of any defamatory meaning. They further said that they sent the letters to the plaintiff in the honest belief that they were acting in pursuance of the objects for which the Medical Defence Union was established, and in the interests of the general public, who were entitled to be able to distinguish between registered and unregistered medical practitioners; and in the interests of the medical profession and the plaintiff herself.

The plaintiff conducted her own case. Mr. Croom-Johnson, K.C., and Mr. H. C. Dickens appeared for the defendants.

The plaintiff gave evidence and, in cross-examination by Mr. Croom-Johnson, said that she had no desire to use any title which would mislead people. People knew of her before they came to her. She most certainly asserted that her degree embraced a wide knowledge of the healing art. No learning was separable from that art when it trained the eye, the hand, and the mind.

Asked whether osteopathy was the only profession she practised, the plaintiff said that she always practised as a scientist. She also wrote books. She always said that first and foremost she was a scientist and she surveyed the whole field of natural science.

That is a large field for you to discuss with your patients?—Yes; we never get through it.

The plaintiff said that, in her experience, anyone who came to heal was a "doctor" to the patients; all they wanted was to be healed.

But for this action the only people who would ever have heard about this correspondence of which you complain was yourself on the one hand and the Secretary of the defendant Union and his lady typists on the other?—Yes.

His Lordship: What you complain of is that instead of writing the letters with his own hand the Secretary dictated them?—No; the letters are on the file for others to see.

Re-examining, herself, the plaintiff said that her main study had been natural science, which dealt with life and physiology. She had seen all kinds of operations in surgery; also much manipulation and diagnosis. She would rather leave the

field of healing than part with her doctorate. To give it up would mean that she had been imposing on the public for the last ten years. She had never imposed on them.

M. Frederic Alhemes, advocate and legal adviser to the French Embassy, said that the plaintiff's French doctorate was one of which she could be proud.

In cross-examination the witness said that it did not entitle her to practise medicine in France.

Lieut.-Colonel Sidney John Worsley, Academic Registrar of the University of London, said that, by reason of her qualifications, the plaintiff was exempted from examination in chemistry, physics and biology, for the first degree in medicine. The degree of doctor carried with it the title of "doctor." He would take it that if the title of doctor were denied, the degree of doctor would also be denied. The title was applied to the degree of doctor in any faculty. The University of London gave the title to doctors of *bona fide* foreign universities.

The plaintiff: What title would you give me as a Doctor of the University of Paris?—We should call you "Dr. Mellor."

In answer to further questions the witness said that the practise of osteopathy did not deprive the plaintiff of the title of doctor. He would understand from her professional card that the prefix "Dr." applied to the D.Sc. The doctorate of osteopathy did not affect the D.Sc.

The plaintiff: Does that card imply to you that I am a Doctor of Medicine?—Not to me.

Does it imply that I am a medical practitioner? —No.

Mr. Richard A. Spencer, Secretary of the Teachers' Registration Council, spoke of the scholastic attainments of the plaintiff, whose name was on the register. He said that the status of the University of Paris was high in the world of learning, and its degree of doctor was as high as in this country.

The plaintiff: By what title am I addressed by the Teachers' Registration Council?—Doctor.

According to my card, what kind of doctor am I?—Doctor of Science.

Does it imply that I am a Doctor of Medicine? —Not at all; it distinctly states underneath: "Osteopathic practitioner."

The witness said that he was aware that the plaintiff was engaged in the art of healing. He had seen her books. He would give the title of "doctor" to medical practitioners only if they held doctorates.

At the conclusion of the plaintiff's case Mr. Croom-Johnson submitted that there was no case for him to answer.

Miss Mellor, having replied to this submission,

The Lord Chief Justice said that the words complained of by Miss Mellor were not reasonably capable of a defamatory meaning. That being so, Miss Mellor's claim failed at the outset. Even if the words had been defamatory, on Miss Mellor's own admission they were published on a privileged occasion, and there was no evidence of any malice on the part of the defendants.

There must, therefore, be judgment for the defendants, with costs.

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*Cutting Cows' Tails: A "Barbarous Custom."*—The cutting of cows' tails as a remedy for disease was described by a Cardiff veterinary surgeon, Mr. John Lord Perry, at Bridgend Police Court, on Saturday, as a "very old, barbarous custom," which still prevailed in certain farming districts in Wales. Cutting a cow's tail, he explained, would in no way remedy the disease. It was cruel and should be stopped.

When a cow failed to rise from the ground a local quack was usually called in, and he prescribed cutting off the cow's tail. If the cow was able to rise after that it was regarded as a sign that it had been cured. There was no such thing as "worm" in a cow's tail.

Stephen Edwards, farmer, of Nottage Porthcawl, was fined £1 and ordered to pay three guineas costs for neglecting to give a cow proper care and attention. Archie Phillips, haycutter, of Porthcawl, was fined £1 for causing unnecessary suffering to the cow by cutting its tail.

Edwards said he had done everything possible for the cow, and if he had known it was cruel to cut the tail he would rather have had the cow destroyed. Phillips said he had been born and bred on a farm and had seen tails cut hundreds of times. He did not think it caused cruelty. It was an old custom among farmers.

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## LIVERPOOL'S VETERINARY SERVICES

At a recent meeting of the Liverpool Health Committee, consideration was given to the position of the Veterinary Department of the Corporation, consequent upon the taking over by the Government of all statutory duties under the Diseases of Animals and the Milk and Dairies Acts.

It was reported that the three veterinary officers of the Corporation had entered the Government service—Mr. H. T. Matthews (the chief veterinary officer), as superintendent-inspector for Lancashire and Cheshire; Mr. J. C. Baird (his deputy), as inspector for Lancashire, and Mr. R. J. Thomas (assistant), as inspector at Carmarthen.

The committee decided to recommend the City Council to discontinue the Department, to place the Corporation horses in the care of the City Engineer's Department, and to employ practising veterinary surgeons as may be required.

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## UNIVERSITY OF LONDON

### B.Sc. (Veterinary Science) Examination

Following is the Pass List issued by the University of London in connection with the March, 1938, B.Sc. (Veterinary Science) Examination for internal and external students:—

Second Examination: (*Part I*).—Blair-Fish, P. R.; Evans, E. T. R.; Macgregor, D. E. (external student); Rutland, G. A. R.—all of the Royal Veterinary College.

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## PSITTACOSIS

An outbreak of sickness in the Parrot House of the London Zoo is suspected to have been one of psittacosis. A commissionaire who had been in contact with the birds has died in hospital "of a fever resembling psittacosis" and three keepers from the Parrot House are also reported to be ill.

In the course of a leading article appearing under the heading "Psittacosis Again," the

*British Medical Journal*, of April 2nd, says: "It is perhaps not generally realised that since the epidemic of 1930 died down, cases of psittacosis have been occurring in this country. It is true that the number of cases has not been great, but it is significant that there should have been any at all. . . . The epidemic eight years ago was the result of the introduction into this country of diseased birds from South America. The investigation made possible by the epidemic showed that psittacosis was due to an infection with a filterable virus which was excreted by the diseased birds with their droppings; and the epidemiological data, together with the fact that in the human disease the respiratory tract was principally involved, pointed to the respiratory tract as the portal of infection in man. From what was known then it was thought that this country could be kept free of psittacosis by strictly controlling the immigration of birds of the parrot family. This policy has failed, and its failure is due to the fact that it was based on two assumptions, both of which have proved false. The first was that the home-bred birds were free from infection. Whether they were free from infection before the 1930 epidemic it is difficult to say; probably they were not; but they are certainly not free from psittacosis now. The second assumption was that a bird which appeared healthy and remained in good health during a period of quarantine was not infected and could safely be admitted to this country. This overlooked the fact that healthy carriers of psittacosis might exist . . . it is from such apparently healthy carriers that many of the human cases have arisen during the past few years.

"It is obvious that strict control of parrots and parrakeets coming into this country, with an adequate period of quarantine of those birds admitted, is by itself inadequate. Possibly the periodic infection of the stock possessed by bird dealers and the laboratory investigation of all deaths in birds of the parrot family, with destruction of the contacts in aviaries or bird shops where there have been cases of psittacosis, would in time materially reduce the incidence of the disease. But the public should know that the matter rests very largely with them. . . ."

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## GLASGOW VETERINARY COLLEGE: ANNUAL BALL

The Annual Ball of the Glasgow Veterinary College organised by the Students' Representative Council in St. Andrews Halls, on Friday, March 11th, will remain a memorable event for all those who were present.

The Board of Governors and staff were very well represented, the principal guests who honoured us with their presence being the Rt. Hon. the Earl of Home, K.T. (Hon. Vice-President of the Board), Mr. Alexander Murdoch, C.A. (Chairman), Mr. James Austin, M.A., LL.B. (Secretary), Mrs. Marshall of Edinburgh, Professor William Robb, F.R.C.V.S. and Mrs. Robb, Professor Hugh Begg, F.R.C.V.S. and Mrs. Begg, Professor John G. Duncan, A.R.T.C., F.I.C. and Mrs. Duncan, Mr. Harry Robb, M.R.C.V.S. and Mrs. Robb, Mr. Alex. Thompson, M.R.C.V.S. and Mrs. Thompson.

A large number of graduates travelled to attend. It was unfortunate that Dr. Whitehouse was unable to be present.

The University of Glasgow and all the Colleges sent representatives to the function which proved so enjoyable for the 500 guests who took part.—W. E. B.

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## H.M. STATIONERY OFFICE PUBLICATIONS

The undermentioned have been published recently. Copies can be purchased through any bookseller, or directly from H.M. Stationery Office, at the following addresses: London: Adastral House, Kingsway, W.C.2, and 28, Abingdon Street, S.W.1: Cardiff: 1, St. Andrew's Crescent; Manchester: York Street; Edinburgh: 120, George Street.

| | *Price net* s. d. | *Post free* s. d. |
|---|---|---|
| Health, Ministry of: | | |
| Circular 1675. Public Health (Imported Food) Regulations, 1937. Recognition of Official Certificates, Argentine Republic, Australia, Belgium, Canada, Chile, Danzig, Netherlands, New Zealand, Shanghai, Sweden, Uruguay, March 24th, 1938 (33-9999) ... ... ... | 0 3 | 0 3½ |
| Statutory Rules and Orders, 1938: | | |
| *Diseases of Animals*. 193. The Epizoötic Lymphangitis Order, dated March 3rd, 1938 ... ... ... ... | 0 3 | 0 3½ |
| 196. The Sheep Scab Order, dated March 3rd, 1938 ... | 0 10 | 0 11 |
| 202. The Rabies Order, dated March 3rd, 1938 ... ... | 0 3 | 0 3½ |
| 203. The Swine Fever Order, dated March 3rd, 1938 ... | 0 6 | 0 7 |
| 204. The Anthrax Order, dated March 7th, 1938 ... | 0 4 | 0 5 |

* * * * *

## IMPORTED MEAT: INSPECTION AND CONTROL

As from April 1st, under the Public Health (Imported Food) Regulations, 1937, the importation into this country of all meat, including bacon and ham, and also meat products such as canned meats, sausages, and sausage casings, will be permitted only if they are accompanied by an Official Certificate recognised by the Minister of Health, as evidence of satisfactory inspection and hygienic preparation. In addition to the certificates already recognised for 31 countries, the Minister has now recognised Official Certificates for France, Kenya Colony and South West Africa.

Further notices will be published, from time to time setting out details of any additional certificates which may be recognised for other countries.

The importation of certain defined classes of meat (such as scrap meat) continues to be prohibited.

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## TUBERCULIN REACTORS: MEAT TRADERS DEMAND COMPULSORY BRANDING

At the Jubilee Conference held by the National Federation of Meat Traders' Associations, in London, at the end of last month, a resolution was passed unanimously, requesting the Ministry of Agriculture to make compulsory the branding of reactors to the tuberculin test. Mr. G. T. Tristram, in moving, said that although a

similar resolution had been passed at Buxton, it was not desired that this should be a hardy annual, but that some progress should be made to attain their object. It was a very serious question to traders in what he termed a milking area. Cattle were tested for tuberculosis and those which reacted were allowed to be sold in the market with the result that the butcher who bought them became the victim if they were subsequently condemned. He realised that branding the cattle would be a disadvantage to the farmer, and suggested that the fairest method would be for them to be sold on the dead weight basis. The farmer would then get full value for them on slaughter.

Mr. T. Masheter, in support, said it was an opportune time to impress their argument upon the authorities because a new veterinary State scheme had just been put into operation for the purpose of eradicating contagious diseases.

The Conference also urged the Government to take more active steps to enforce the Warble-Fly Order.

* * * * *

## POST GRADUATE AGRICULTURAL SCHOLARSHIPS

The Ministry of Agriculture and Fisheries and the Department of Agriculture for Scotland invite applications for agricultural scholarships from students who propose to follow the career of agricultural organiser or instructor or lecturer in agriculture (including horticulture, dairying and poultry-husbandry). The object of the scholarships, of which not more than four will be awarded annually, is to broaden the agricultural knowledge and experience of students and so to qualify them for the position of agricultural organiser, instructor or lecturer.

Candidates must be British born, and should be graduates of a University, but exceptional candidates, otherwise qualified, who have not had an opportunity of graduating, will be regarded as eligible. Application may also be made in respect of candidates who have sat for a degree or diploma examination of which the result has not been announced. In addition, candidates should have had some experience of practical farming.

The selection from candidates will be by interview and the allocation of the scholarships between the applicants from England, Wales and Scotland, will be made entirely on the basis of merit. The value of the scholarships will not exceed £200 together with an allowance for approved fees and travelling expenses. The amount may be varied in accordance with the scholar's means and may cover the whole of the cost of training, including maintenance, or a proportion only of such cost. The period of the scholarships is normally one year and commences on October 1st. It will be spent at such agricultural educational or research institutes, advisory centres or farms as the Ministry or the Department may direct.

Candidates must be nominated by a Professor, Principal or Lecturer of a University or College, on the prescribed form, which, together with other particulars, may be obtained, by English and Welsh students, from the Secretary, Ministry of Agriculture and Fisheries, 10, Whitehall Place, London, S.W.1, and, by Scottish students, from the Secretary, Department of Agriculture for Scotland, 29, St. Andrew Square, Edinburgh, 2. The latest date for receiving nominations is *June 1st*, 1938.

# Correspondence

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

All correspondence must bear the name and address of the contributor for publication.

*The views expressed in letters addressed to the Editor represent the personal view of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.*

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## SUSPECTED AUJESZKY'S DISEASE (" PSEUDO-RABIES "—" MAD ITCH ")

To the Editor of the Veterinary Record

Sir,—All readers of your journal who are convinced that they have seen this condition fully described by Messrs. Harvey and Reid in your issue of February 26th, and again on March 26th by my neighbour, Mr. F. W. Hart, must have had their interest aroused by these contributions.

From the clinical standpoint, the designation " mad itch " seems definitely to be a very fitting one, for the train of symptoms shown cannot be confused with any other known clinical condition in cattle.

On reference to my daily records, and going back to September, 1914, my first year in practice here, it is found that, on the morning of September 30th, while on a round on other work, in a district in Co. Fermanagh, ten miles from here, I was called to see a cow—one of a herd of seven—showing very peculiar symptoms. Having a distinct recollection of this case I have no doubt that the symptoms shown agree in detail with those given by the above-mentioned authors, and therefore they need not be repeated here.

Not having seen, read or heard of anything similar, an admission had to be made to the owner, that not even a speculative diagnosis could be made. This animal succumbed within 48 hours from the time when she was first noticed and the rest of the herd remained healthy on September 30th and October 1st.

On the morning of October 2nd, commencing signs of " mad itch " were shown in another member of the same herd, and a message was received by me and attended to on the night of October 3rd, when the animal was found down and comatose. The only advice given was to slaughter, that a *post-mortem* examination should be made and, as far as possible, the matter investigated further. Owing to the lateness of the hour, slaughter, etc., was deferred to the following day. At that time there was no change in the animal's condition from that seen the previous night, and it would have been difficult to say how long this animal would have survived.

My recollection of the *post-mortem* examination is that nothing of special significance was noted in the internal organs. Injuries were found in the vagina and rectum, skin of the vulva, anus and buttocks—the result of gnawing and violent rubbing against every conceivable object. There were forwarded to the laboratory for pathological examination—with a full account of the symptoms shown—the posterior part of the vertebral column (with its section of spinal cord), rectum, vagina, uterus and ovaries, and injured skin, hairless and haired. The report on these did not throw any light on the cause of the disease.

I am not aware of the occurrence of any cases in the same district since, neither have I seen any in the course of my practice in this county, nor in an adjoining western county with which I have contact.

Curiously enough, all the cases recorded in these islands to date, have been met with in cows, with the possible exception of those described by Harvey and Reid which occurred in yearlings, as it is not stated whether they were male or female.

Yours faithfully,
P. A. M'Corry.

Ballyconnell,
Co. Cavan.
*March 31st*, 1938.

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## THE RECENT LAW CASE *RE* POISONING OF SHEEP WITH ARSENIC*

To the Editor of the Veterinary Record

Sir,—I have been interested in the recent reports of the judgment given in the legal action resulting from the poisoning, by arsenic, of sheep treated for internal parasites with a mixture of copper sulphate and sodium arsenite. Arsenic has been commonly used in Australia as a treatment for Haemonchosis, though the varying State veterinary authorities differ in their attitude to this drug. Thus the Department of Agriculture of New South Wales have never recommended its use, on the grounds that a comparable efficiency against *Haemonchus contortus* is given by copper sulphate, which has a considerably higher safety factor. In Queensland, however, arsenic has been widely employed in the form of white arsenic and is rendered soluble by the use of sodium salts. It is undoubted, I think, that there is no point in using white arsenic or sodium arsenite alone in preference to copper sulphate, but there do seem to be reasonable grounds for the South African claim, which Australian experiments support, that the sodium arsenite-copper sulphate mixture has a somewhat higher average efficiency, provided the mixture is given in solution or as a powder.

Where this mixture has been employed in Australia, the dosage recommended has always been that of Veglia, which from a maximum dose of 125 milligramme (2 grains) for an adult sheep, is carefully graded for younger animals down to a minimum of 40 mg. (approximately 0·65 grain) for lambs under four months old. So far as the treatment of the common tapeworms of sheep or of the small intestine worms (*Trichostrongylus* spp.) is concerned, there is nothing to justify the use of arsenical preparations in preference to copper sulphate. Against the former copper sulphate has a considerable, though variable efficiency, while against the small intestinal worms neither arsenic nor copper sulphate has a sufficient degree of efficiency to justify their employment in place of the copper sulphate-nicotine sulphate mixture.

As for the factors influencing the toxicity of arsenic preparations in Australia, I think it is safe to say that in the majority of the mortalities which have occurred, the factor responsible has been over-dosing. Cases are not unknown where conscientious farmers have given very heavily infested sheep a double dose for "safety," while the same treatment may be meted out as punishment to a sheep which struggles when being dosed. I should be glad to hear of any reliable evidence that the giving or withholding of water after treatment with arsenic does influence the susceptibility to poisoning materially. Certainly Veglia's original experiments which are frequently cited in this regard are no more than suggestive and certainly not conclusive. More recent South African experience has, however, indicated that risk of mortality is greater when sheep are heavily infested with the small intestinal worms. In a great many cases in Australia, sheep have undoubtedly been treated with arsenic and not kept from water subsequently without ill-effect. This is a matter which would be definitely determined by simple experimental procedure in countries where the advocacy of arsenical treatment is general.

Yours faithfully,
I. Clunies Ross.

The International Wool Publicity and
Research Secretariat,
Bush House,
Aldwych, London, W.C.2.
*April 1st*, 1938.

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## TETANUS

To the Editor of the Veterinary Record

Sir,—I agree with Mr. Smyth in discouraging the use of slings in cases of tetanus. Slings are often the first stage in the march to the knacker's yard. In cases of tetanus, they aggravate the condition, and if the horse gets down, or is unable to stand, usually he will not get up again—at any rate on this side of the rubicon!

The value of serum as a curative is doubtful, unless given early (before the jaws are completely locked), and in large doses (half a pint to a pint, *intravenously*).

As a prophylactic, I consider that it is the most reliable of all sera, and use it in all cases of wounds, especially those arising from injuries to the foot, or the perineum; in fact, all wounds other than surgical. Moreover, since losing a castration case several years ago from tetanus, I now make it a practice to use serum after every castration on the horse. I do not necessarily doubt my skill and the efficacy of the aseptic precautions I take, but I do doubt the immunity of my patient from rolling in filth before healing is complete.

In view of the comparative infrequency (at least in my experience) of tetanus in cattle, I should like to record, as a matter of interest, that I have had three cases during the past nine months, all of which apparently originated from damage by the attendants, to the vagina, at the time of parturition.

I have not seen one case in the bovine recover.

Yours faithfully,
J. F. D. Tutt, F.R.C.V.S.

"Rothiemurchus,"
St. Cross,
Winchester.

* * * * *

## PROLONGED GESTATION

To the Editor of the Veterinary Record

Sir,—On March 17th, 1938, I was asked to see a Jersey cow which was showing evidence of calving. This cow calved her first calf normally on March 25th, 1936. She was served on April 30th, 1936, but since that date had not been in oestrum or shown any evidence of calving.

Upon my arrival I found that she had dropped a mummified foetus about 18 inches long enclosed in placenta, having carried it for two

*The Veterinary Record, **50**, 10, pp. 308-310, March 5th, 1938.

years less six weeks. During this time she has been apparently quite healthy and was still giving half-a-gallon or so of milk per day.

Some years ago I met with a case of a Shorthorn cow which aborted one foetus at five months and carried a twin (not mummified) for twelve months and a week; the calf was an abnormally large one and had been dead for some time. I am wondering, however, whether this more recent case constitutes a record.

Yours faithfully,

W. A. Austin (Capt.), M.R.C.V.S.

5, Estcourt Street,
Devizes,
Wiltshire.

* * * * *

## AGRICULTURAL RATIONALISM AND VETERINARY SCIENCE

To the Editor of the Veterinary Record

Sir,—There are few intellectual experiences more satisfying than the happiness of discovering, after long years of frustration and groping after the truth, that others see more clearly the same light and that fleeter runners will carry on the torch. It is, I believe, no exaggeration to say that publication in the *Veterinary Record*, of February 12th, of the paper on "Agricultural Rationalism and Veterinary Science," presented to the Western Counties Division at Taunton, on October 27th, is the most notable veterinary journalistic event of this century. The editorial in the same number entitled "Rationalism or Irrationalism," strikes the same high note of inspiration and is a philosophical contribution of considerable scientific and political value.

So-called progress in the agricultural world has been too fast, but these contributions show that we have been able to get ahead of the mad rush and are now waving the red flag of warning right in the face of the oncoming folly. One man could not alone do this: a consensus of enlightened veterinary opinion was needed before Professor Miller could get such a sympathetic hearing for views which, a few years ago, were rank heresy amongst us. From time to time during the last 25 years—beginning with the official pamphlets I wrote during the Great War on the uselessness of most so-called "therapies" in comparison with animal husbandry—I have tried to say in several countries and in all manner of journals what Professor Miller has said so much more clearly and ably in his paper.

It was seldom that veterinary journals would publish the message it was laid upon me to deliver; consequently one had to leave the orthodox path and go out into the by-way of the lay Press. It was not the means one desired or would have chosen and one made thereby bitter critics and even enemies, but until lately there was no other way for a veterinarian to say in the words of your editorial: "A knowledge of foods and feeding, a thorough understanding of exercise, of normal reproduction, and a far more adequate training in animal husbandry, will be of more service to the veterinarian of the future than an acquaintance with clinical medicine and surgery" (and I would add, some bacteriological methods). Twenty-three years ago I used remarkably similar words in an official pamphlet on animal management (reproduced in the Veterinary History of the War) and thereby incurred unpopularity for the heresy. But now one need say no more, or very little more, because the fire that one was too feeble to kindle is now lit by a stronger hand and will not go out again.

There is just one thought that may usefully be added to what was said so well at Taunton—a reflection on personnel. Ideas and reforms will not fully serve us or agriculture, if intelligent zealous agricultural workers are lacking to execute them. I had the good fortune to spend my early youth and the vacations of later years wholly on two large model farms, one in Oxfordshire and one in the County Westmeath in Ireland. It was plain to me even then and it is far clearer now, that the amazing success in the animal husbandry on such farms in those days was largely due to the expert knowledge and keenness of individual farm-specialist workers and to the abundance of well-trained and often highly skilled labour. (I was a little later to spend much time among the relatively under-staffed and over-crowded dairy farms of Wigtownshire where already animal diseases were becoming prevalent.) Where shall we find to-day those real aristocrats of agriculture and the people, the hereditary shepherds, the traditional swine-herds, the born horsemen, and the almost incredibly industrious dairymen and cowmen? Or, if some still linger, where that plenitude of reverent, keen and obedient youth, those rural acolytes and novices in the almost religious service of Pan? Even now in the mind's eye one can see the barefooted and still (at twelve years) petticoated little son of the Irish "herd" trotting eagerly behind his father or proudly driving out the ass-cart with the load of cabbages, or ensilage, or cake, to the grateful beasts in the frosty field—and thus learning at the right age and in the only true school the ways and the needs of animals.

Among the many excellent things that Professor Miller said, none was more cogent than his admission of our ignorance of *all* the essentials for the proper metabolism of farm animals. We know a thing or two, but we are immeasurably far from knowing it all, and in the meantime our best hope is to leave a big margin for safety even if it seems wasteful. An old-time maxim, so generally believed by our forebears, was that "high farming" was the only true farming. High farming connoted a certain lavishness in fertilisation, keep, drainage, space and labour.

But in a modern and over-commercialised age how are we to recover such ideal conditions which experience has shown to be necessary conditions for animal health and vitality on the farm? The immediate outlook is nearly hopeless and would be quite hopeless but for this first breaking through of the dawn of a real veterinary intelligence.

Yours faithfully,

Wakefield Rainey.

Bloemfontein Turf Club,
Bloemfontein,
South Africa.

*March 9th*, 1938.


### Advertiser's Announcement

B.D.H. Vitamin Products

The British Drug Houses, Ltd., Graham Street, City Road, London, N.1. have issued a further booklet in reference to B.D.H. Vitamin Products. In view of the fact that recently much research has been done upon the vitamins and considerable scientific advances have been made, particularly in regard to Vitamin $B_1$ and Vitamin C, it was thought appropriate at this time to issue a new booklet summarising a few of the more important findings of science.

A copy will be gladly forwarded on request.

# USEFUL ADJUNCTS IN THE TREATMENT OF ANIMAL DISEASE

## BOVINE MASTITIS

**MULSOR—Preventive and Curative**
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**Box of 4 ampoules - - - - 2/6**

This Vaccine has the effect of sterilizing all foci of infection which cannot be reached by local treatment and by its immunizing action prevents the secondary infection of other organs. In acute and chronic conditions it limits the destructive action produced in the mammary tissue.

**DIAMIL — For Intra-mammary Injection** (Laigle Laboratory)

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Consists of an acridine salt combined with a suitable albumen. This combination possesses the bactericidal properties of acridine but is entirely non-toxic and may be used with perfect safety, without damaging in any way the mammary gland tissues.

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**TREGOR—Preventive and Curative**
(Laigle Laboratory)

**Box of 4 ampoules - - - - 2/-**

This Vaccine is prepared from the various organisms incriminated in the causation of joint-ill, pyæmic arthritis and umbilical infection. It is detoxicated and may therefore be given to young animals without reaction, either local or general.

## WOUNDS, SUPPURATIONS and PYOGENIC INFECTIONS — EQUINE AND CANINE

**POLYVALENT SERUM—Preventive and Curative** (Toulouse Laboratory)

**Phial of 10 c.c. - - - - - 1/4**

This serum is prepared according to the method of Leclainche and Vallée and possesses the recognised advantages of normal horse serum as well as those due to the presence of specific antibodies.

*Descriptive leaflets, giving the full technique of use, will gladly be sent to any Veterinarian on request. Enquiries and orders should be addressed direct to:*

**THE VETERINARY DEPT.**

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## NOTICES

### EASTER HOLIDAYS

**On account of the Easter Holidays, the latest date for receiving advertisements and other matter intended for publication in our next issue (APRIL 16th) is Tuesday (morning), April 12th.**

### VETERINARY RECORD" AND CHANGES OF ADDRESS

**READERS are asked to inform the General Secretary of any change in their address by THURSDAY MORNING if they wish the following Saturday's issue of "The Veterinary Record" to be sent to the new address.**

**The publication of this notice is prompted by the recent increase in the number of readers who notify change of address on Friday and Saturday, when it is too late for any alteration to be effected before the following week.**

*THE Editorial Committee of the N.V.M.A. will be glad to receive from practitioners reports of cases likely to prove of interest to readers of this journal.*

It is suggested that, wherever possible, the adoption of a uniform method of recording cases is desirable, and the following is issued as a guide for the recording of clinical cases for publication.

Records should be as complete as possible, concise, and written in the third person. Photographs, radiographs, sketches and diagrams should be submitted if advantageous.

When describing lesions, dimensions should be indicated as far as possible by measurements, or by comparison with common objects.

*Subject.*—Age, sex and breed. In the case of cross-bred small animals—approximate bodyweight.

*History.*—Duration of disease. History of in-contacts. Nature of onset and course. Diet. Previous medical history.

*Examination.*—Eyes, ears, skin, mouth and teeth. Limbs and action. Thorax, abdomen, urinary and genital tracts. Examination of urine, faeces, discharges, skin scapings.

*Diagnosis or differential diagnosis.*

*Prognosis.*

*Treatment.*—In surgical cases details of anaesthesia and operation.

*Course of Disease.—Outcome.*

*Post-mortem Examination.*—Record should be comprehensive and findings carefully described.

*Discussion.*

## NOTICES

**ORIGINAL Articles are only accepted on the understanding that the "Veterinary Record" has priority of publication.**

### Glasgow Calling

*ALL members of the N.V.M.A.* to rally round the President on the occasion of this year's Congress.

By so doing the profession can show their feeling of gratitude to the man who has guided the Association through a chapter in the life of the profession which is now history.

His motto has been "Labour Conquers Everything" and his guiding principle, "Unity;" that principle has enabled all of us to retain all that makes for our individual happiness, and gives us the privilege and opportunity of working for the common good of the State.

We, the members of the Provisional Committee, who have had the privilege of working with Mr. Campbell in the preparation of this year's programme, have no hesitation in saying that the members who support him will also benefit themselves.

The programme has been so arranged that in each paper there is a side for every section; the readers, openers and demonstrators are personalities who are masters of their subjects.

The social functions, while following the usual schedule, need no words to conjure up the feeling of good fellowship with which they are always endowed.

We are not really capable of describing the beauty of Scotland's scenery that is yours to behold on the tours, by land and sea, which have been arranged.

Old Moore, in his Almanack, says the weather will be glorious—that is all we hope for the outings.

And the venue of the Congress! The Empire Exhibition in Bellahouston Park! Almost sufficient in itself in beauty, interest and amusement.

**You Cannot Afford to Stay at Home**

### Pets Service Club

IT has come to the notice of the Organising Committee of the N.V.M.A. that a new club, called the Pets Service Club, one of the main objects of which is to raise funds for the Royal Veterinary College, is being formed, and that members of the profession are being asked if they will act as veterinary surgeons to the owners of pets belonging to this club. The N.V.M.A. are making enquiries into this matter and feel that, meanwhile, members should not take action on the circular issued by the club.